
PAINTED FOR
JAMES VICK
SEEDSMAN
GERMAN IRIS

MARCH, 1889.

THE FIRST SPRING month brings increased care and labor to the gardener and farmer; even at the north, where the most active work does not yet commence, there are still preparations of one kind and another to be made, while further south many kinds of work in the garden and fields are already in progress. The fruit grower must prune his trees and clear them of insects, he must prune his vines and provide new stakes and trellises, he must cut out old canes from his Raspberry and Blackberry plantations. The gardener must start seeds of many kinds, prepare hot-beds and frames; the good housewife, who cultivates flowers, or, perhaps, manages a kitchen garden, as well as beautifies her grounds with flowers, is silently busy with her seed-pots and boxes at the window, raising a multitude of seedlings that will later fill the garden with useful vegetables, and make it gay with bright colors and graceful foliage. No time is now to be lost, for many kinds of plants need to be planted out early to have the opportunity of rooting and gathering strength in the cool, moist springtime to prepare them for the trial of heat they must endure later.

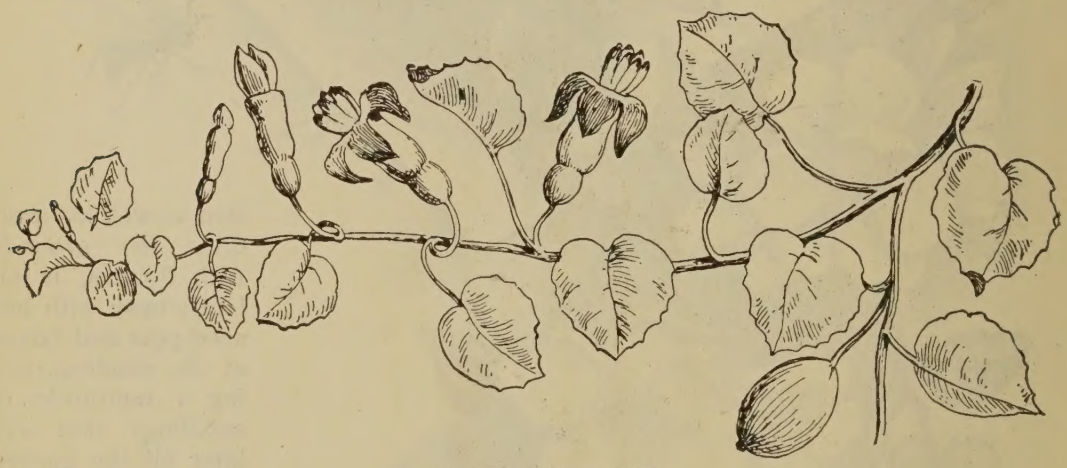
Be in time with seeds of the Pansy, the Verbena and the Carnation, and, if not already in the seed-pans, lose no time in putting them there.

Do not put your labor on poor soil. The earlier a crop, as a rule, the more valuable it is. Raise only the best varieties of plants in the garden; it costs no more to raise good varieties than poor ones. See where a new tree or flowering shrub can be planted. Let forethought go before labor.

THE FUCHSIA.

Though not one of the oldest denizens of our gardens and windows, the Fuchsia has been known to the present generation "from its youth up." The genus is an American one, Mexico claiming title to some species, while Chili has presented us with others. Some of these are F. coccinea, or, more properly, F. Magellanica, having its leaves in whorls of three, and the flowers solitary in the axils of the leaves; F. gracilis, with a downy stem, smooth, opposite leaves and long flowers; F. excorticata, having alternate leaves; F. lycioides, F. virgata, F. longiflora, F. fulgens, F. penduliflora, and F. procumbens. These original forms are more interesting from a botanical than a floricultural point of view, although three of the species named—F. fulgens, F. penduliflora and F. procumbens—are occasionally grown and are very beautiful.

Some of these would scarcely be recognized as Fuchsias at all by one who is only acquainted with the more ordinary garden forms of the family, F. procumbens having,



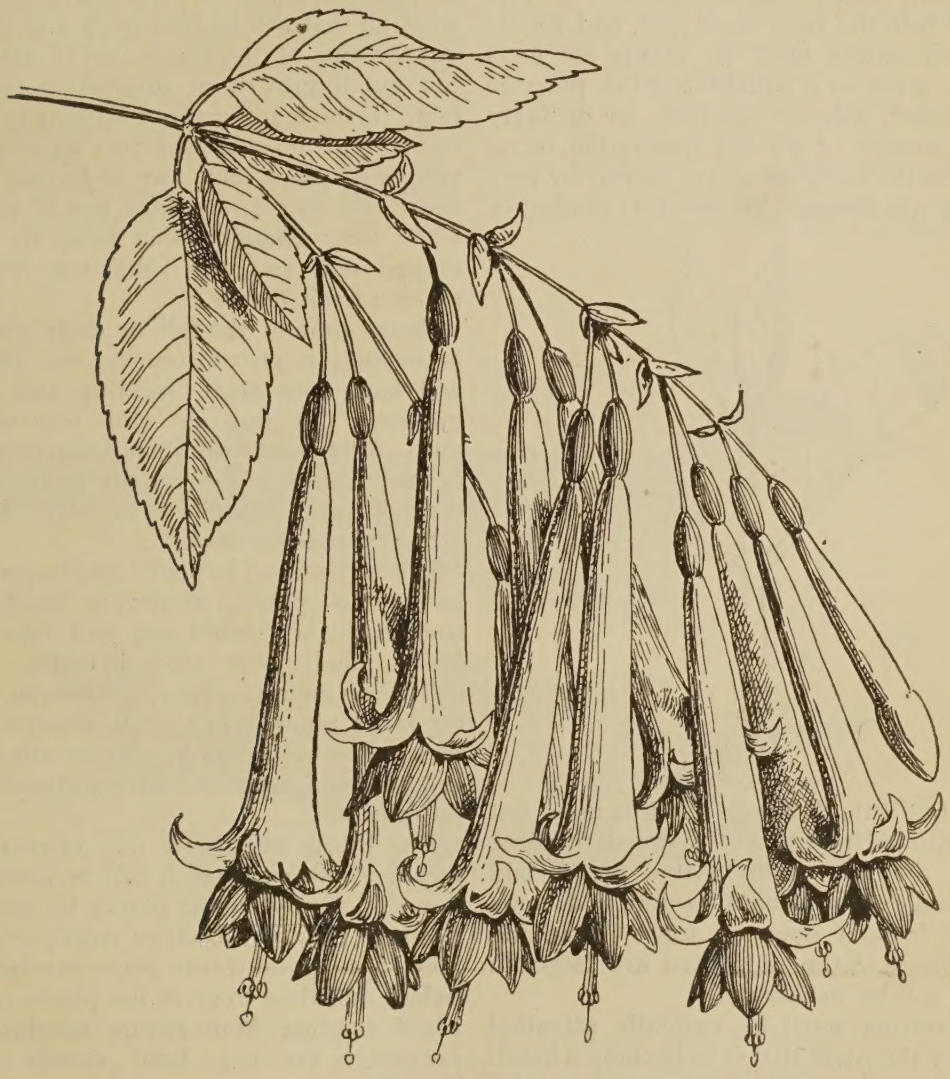
FUCHSIA PROCUMBENS.

as the name indicates, a trailing habit, and F. fulgens having thick, fleshy, tuber-like roots, somewhat resembling Dahlia tubers, though, of course, much smaller.

As our present purpose is mainly to speak of garden varieties, their uses and culture, little more need be said here concerning these denizens of the Andes, excepting that they carry their generic name in honor of one LEONARD FUCHS, a German botanist of "ye olden time," and that they belong to the natural order Onagraceæ; we may also just note in passing that this order also contains among its members two other well known, but very un-Fuchsia-like plants, the Great Willow Herb, or Fire Weed, Epilobium angustifolium, which in the north seems to spring up, Phoenix-like, from the ashes wherever the forest is cleared and burnt over, and the Evening Primrose, Œnothera biennis, whose claim to relationship with the aristocratic Arabella, or Mrs. Marshall, or Storm King may well cause un-botanical minds to smile rather incredulously at the apparently slight "touch of nature" that suffices to make some things "kin." There would be no need of this writing in order to help any of our amateur friends to grow Fuchsias in the way in which they are too often seen, for they will exist, and wriggle, and develop, or, rather, attenuate, under various circumstances, until, like DICKENS' Smike, their feet are too far through their pants, and their hands too far beyond their sleeves for comfort, not to mention dignity. Our aim should certainly be high, but our plants must not be lanky. Professional gardeners, with every convenience at hand, often grow specimen Fuchsias in one season from two or three to even six feet in height with some varieties, with diameter in proportion. Our aim, then, in Fuchsia growing should be plants usually in pyramidal form, and two to four feet in height. We shall approach this standard in proportion as our conveniences are window, bay window or greenhouse, other conditions of light, heat and moisture being the same. The plant well cared for in the window would likely excel the specimen in the greenhouse

left too much to nature. Remember, "this is an art which doth mend nature." The lightest greenhouses and windows, floods of light without scorching—this is good—but intelligent loving kindness is the stuff that keeps plants turned around and carries them from one sunny window to another, and attends to all their little personal wants, and peeps and listens to detect them. This is no mere sentiment, but solid work-a-day truth.

Propagation.—This is, of course, the initial operation. Fuchsias are sometimes raised from seeds. but usually from cuttings. These should be struck quite early if



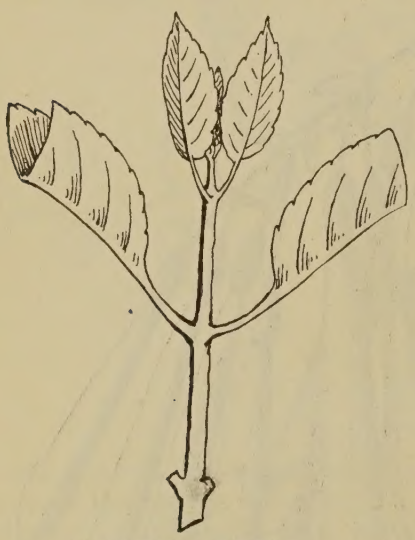
FUCHSIA PENDULIFLORA.

very large plants are wanted by the end of the season, but for most amateurs March will be early enough. The cuttings should be soft shoots from plants started and grown as quickly as possible; they are to be cut off close under a pair of leaves, the latter trimmed off closely, and the whole cutting to be two or three joints in length. Insert these in clean sand, either in pots or propagating bench, keep moist at a temperature of say 70° if in a room. A little variation either way will hurt nothing, and is unavoidable in window gardening. If in a greenhouse propagating bench, from 70° to 80°, and the atmosphere 10° to 15° less will soon root them.

Soil.—As soon as well rooted they should be potted into two and a half or three-inch pots in the ordinary potting soil of decomposed sods, with some thoroughly decomposed hops or leaf-mold from the woods, and some old barnyard or cow manure. The hops, or leaf-mold, and manure together to form about one-fourth of the

compost. If the loam or sod is of heavy soil, with little fiber, more leaf-mold and some sand may be added, and in any case, for the first potting, it will be better to do so.

Repotting.—This must be attended to as soon as the roots are working freely to the outside of the ball of earth and running along the inside of the pot. Shift into the next sized pot, and repeat this operation until the plants are in as large a pot as is suitable for the purpose intended, whether six-inch for ordinary greenhouse or window decoration, or up to twelve-inch, or even more, for very large specimens. For the first potting or



FUCHSIA CUTTING.

two but little drainage need be used, but for five-inch pots and upwards a piece over the hole with several pieces laid around over it shingle fashion, and some finely broken ones on top of that, and still more as the pots used are larger in size, will be necessary.

Watering must be carefully attended to, for the plant that is to become a handsome specimen must never become dry or it will lose its leaves, and if it should happen a few times its tissues would become hard and growth would be checked. With good drainage, so that water can pass away readily, it may be used quite freely, if in a warm place and growth is progressing rapidly; no definite directions can be given, this is one of the many places where the intelligent loving kindness must come in. Of course, when flowering is over water may be gradually withheld, as the wood then will require to be hardened and matured.

Training. — Several varieties, indeed, most of them, naturally assume a more or less pyramidal form, and as this is the most handsome shape for a specimen Fuchsia we will only speak of that one here. If, as is usually the case with Rose of Castile, Black Prince, Wave of Life, &c., your pyramid seems to be forming, no assistance will be required; if otherwise, all that will be necessary is to pinch out the end of the shoot that is making too much growth in proportion to the rest, If the leading shoot is going up too fast so that the side branches are not developing, pinch out the end; this will cause two shoots to sprout, one of which when long enough must have its end nipped out, and the other one left to make a fresh leader.

Some time in the fall or early winter, according to circumstances, the plants will have done their flowering, and may gradually be supplied with less water until all foliage is off, then stowed away in some cool place where frost never reaches, until required to start again for next season's work.

Second Year.—The plants may be pruned back into shape, according to taste, shaken out of the old soil and repotted in as small pots as practicable, and shifted on as in the previous season, and for large plants some weak manure water may be used with advantage after the last shift and the roots have worked well into the soil.

For those who have not convenient means of propagating, it will be better to buy well started young plants in four or five-inch pots, in March or April, or even May, if no good warm place can be had before that time to grow the plants on in. Light shading from strong sunshine is necessary for the best results with Fuchsias.

Sorts.—There are so many varieties in the catalogues that any advice as to kinds will hardly be of any use. Those mentioned under the head of " training," if procurable, will be found good subjects for specimen plant growing.

For winter-flowering the old Speciosa is good—none better. Carl Halt is a variegated blossom, and good for winter. Most catalogues specify such as are most suitable for winter-flowering.

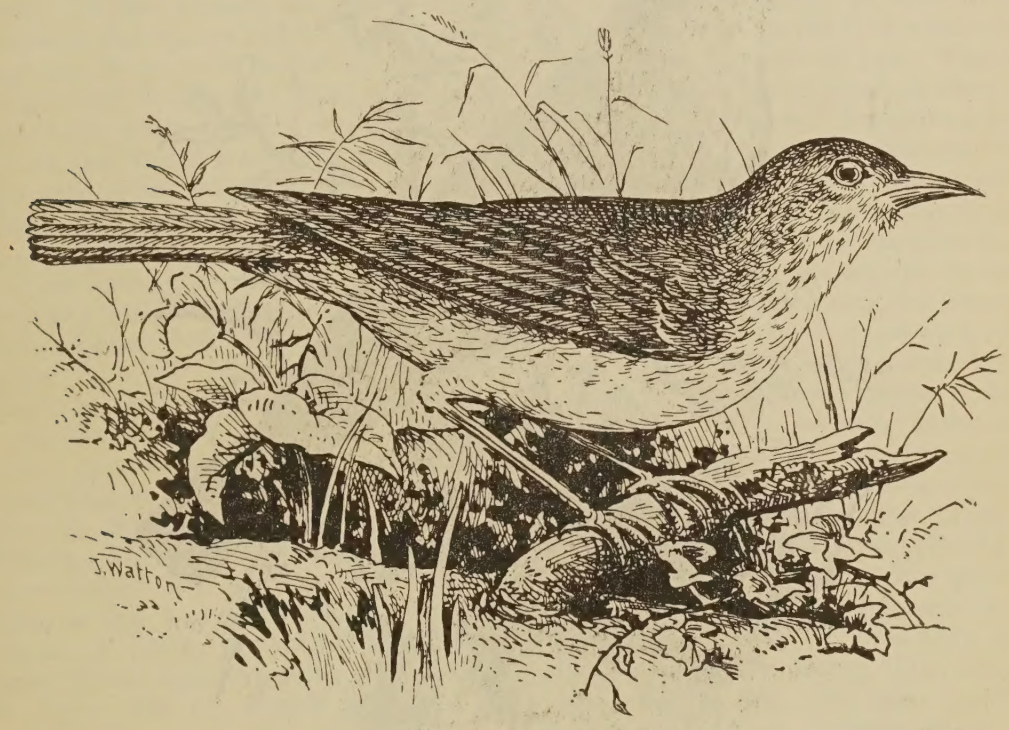
Specimen plant growing is far the best for amateurs, as it brings out their best

efforts, and always give back the best results. A well developed individual plant will give more blossom than a whole window full of crowded starvelings. Attention to details is what ensures success. Let the one who would succeed be a real, literal amateur—a lover.

JAMES BISHOP.

WINTER BIRDS.

A southern gale is roaring through the forest, the ear is filled with its varied voices; there is a rattle of twigs and a twitter of dry leaves near at hand, sharply distinct amidst its steady thunder. The trees toss their branches, the clouds are black at the horizon while flying scuds race over head. The Adder Tongue leaves are pricking through the dead-leaf beds, but yonder steep bluff has a fringe of old snow along its brow. The eye that can see the spring in this naked wind swept wood, beneath such a gloomy sky, must have some microscopic power, so little does the scene differ from the one seen in winter, when the south wind is loosed;



HERMIT THRUSH.

but here, flitting from bush to bush, silent but for a soft chip now and then, is the hermit thrush. The wind now shouting forward, as if to route winter's arctic stronghold, has brought him hither, but how can the little bird be sure he has not ventured too soon or too far? The forces of the south will soon be repulsed, and where are the suns and shades, the bloom and verdure of his summer home? A few hours and the clouds break in a swift rain, the gale subsides, an after-glow floods earth and sky with light, and from the transfigured wood a glad voice of melody comes forth, the thrush is singing his song. Thus the hermit comes to us silent through days of storm or cold, but ready to sing if a day of hazy mildness or a calm, rosy sunset renews the promise of spring.

To-day, a month later, though the sky is cold, and a sleety rain falls at intervals, the steep bluffs are starry with white Trilliums, the pasture slopes are green, and the Anemones along the stream are in bloom, when I hear the first wood thrush from out yonder Hemlocks, the singer out of sight, as usual. Every one knows the hermit and wood thrushes are the best of their musical family, not so many have compared their songs since they do not generally occur in the same region, the her-

mit is apt to be a silent, unobtrusive migrant in the wood thrush's country, bound for more northern latitudes. Here, in Western New York, however, both live in the same wood, you may often hear both at once. Both are glorious singers, both are serene spirits dwelling in unspoiled retreats, far from the strife and problems of the world; their pure melodies are the overflowing of a fountain of content and peace, and we who listen can hardly fail to feel something of their perennial calm.

The unwearied vireo repeats his own name the whole day through, the oven birds go off like alarm clocks answering each other all through the woods, the thrushes wait apparently for an inspiration, both having other notes, for every day use the mellow *peo* of the wood thrush and the sharp *pe-ark* of the hermit; knowing only

WOOD THRUSH.

their true song, you would never imagine such squealers to be of the same or any related species. The notion which crops out everywhere in prose and poetry that their music belongs especially to the sunset hour, has little foundation; they sing at all times, in the early dawn, at noon when most other birds are silent, sometimes with the full moon at the meridian, not the crooning of a sleepy bird but loud and ringing. The song of the hermit gives the impression of the quick revolution of a spiral on its axis. *O, leo, leo, leo,* he seems to say *A, lea, lea, lea, E, lei, lei, lei,* etc., the *o's* low, rich and full, the others pitched higher till the compass of his voice is reached and passed, the song ending in a sharp squeak sometimes. He is not likely to sing in your presence, but if he does you will be delighted with his perfect ease of delivery. He will walk about on a log, looking straight before him or down at the ground, turning this way or that, not with the air of one addressing the four quarters of the earth in turn, but as one whose position is perfectly indifferent. His strain seems borne on his ordinary breath, a tiny ripple runs across his throat, but

you cannot be sure that he opens his beak at all.

Going leisurely through a pleasant woodland, one day, picking the first flowers of the large white Viola canadensis, and finding them deliciously fragrant, contrary to my notion that only the later ones were so, I came upon a hermit catching his dinner amidst the dead leaves, running and jumping after his insect prey, carrying a great leaf in his mouth now and then, as if in play, pausing for a moment and seeming to listen intently. Yes, I could hear it, too; the melody of a distant thrush faintly audible above the gentle stirring of the breeze in the tree tops. Silence ensued, my bird went on catching the insects hidden in the leaves, and my hope that he would prove a singer and answer his rival, if thrushes ever have rivals, was not realized. Then I said, this bird is a female who listens to the song of her mate. But I soon found the ventriloquist here in the leaves was the only thrush in the woods. I could see the light ripple run over his breast as he sang his whispered song, but it was difficult even then to doubt the existence of the far away songster, so perfect was the little conjurer's art!

As you listen to the wood thrush, his music seems more elementary than the hermit's, but for some reason it is less easy to describe or imitate by printed letters. Three or four ripples of sound come ashore, it is hard to say how it begins, so low and gentle is the opening strain. I listen, thinking I will surely catch it next time, but again it eludes me. It never will be settled once for all which is the more gifted minstrel, different moods and taste in the audience and the varying merit of the artists will always defer the final decision.

To-day, with broad bands of light from the declining sun slanting through the grove, the hermit's song ringing and echoing through the arches formed by the great trees, will seem unapproachable; to-morrow, in some dark wooded dell, beneath a cloudy, somber sky, the wood thrush's trilling interprets the sweet silence as no other sound can do. Both are apparently unconscious of civilization, the hermit may make her ground built nest neatly lined with the stipes of the Birdswheat Moss, Polytrichium communis, at the wood's margin. It gives one a hint of her food to see the rich untouched cluster of ripe Strawberries which overhangs this one in her reach, as she sits; her flight is ever toward the forest, our fields and gardens are nothing to her.

When you go forth to look up the birds you may doubt whether to take a long walk or sit down in the first grove and wait for them to come to you. This latter is the easiest and perhaps as effective, one time with another. Remaining quiet with eye and ear intent, you are soon conscious of little voices and movements all around you. You look away to a far horizon and imagine rare happenings in those distant woods not always realized.

The botanist must tramp, the observer of birds might profitably grow on a stake himself, along some quiet woodside; all the varieties would come sooner or later. The contemplative lounger finds some favor in the eyes of the thrushes, at least in the hermit's, who will seek his food and sing, at times, in your presence. The wood thrush has a pretty faculty for keeping just out of sight. His modesty gives a final charm to his songs, which might be lacking if he held forth from every stake in the fence. The summer culminates at last, the last brood is reared, their voices become silent, and we almost forget them, but they are still in their old haunts. Even with the autumn rain beating the painted leaves from the trees, the hermit, at least, flits silently before you, at last they have departed. Silent till they return, their melodies the southland will never know.

E. S. GILBERT, *Canaseraga, N. Y.*

ORNAMENTAL VINES.

I used to think that only the Woodbine was sufficiently hardy to be worthy of culture, but I find I know very little about plants until I make some effort to know. Every land owner ought to take a journal or magazine especially devoted to ornamental culture. There is nothing more refining in its influence upon a home than beautiful surroundings. There are so many defects that handsome vines

DUTCHMAN'S PIPE—ARISTOLOCHIA SIPHO.

might conceal, and places that would be actually lovely if furnished with climbers, that I greatly wonder they are not universally in order instead of the contrary.

The picturesque, however, is gaining ground, and I look forward to the time when few unsightly objects will appear even in out of the way places, and among the extremely avaricious, who think a quarter of a dollar spent in such things as ornamental plants as so much loss. But the coming farmers and their wives are of a different stripe. What a change has taken place among them in the last forty years. I almost wish I could live to note the growth of the next fifty years, but I foresee, and that is enough.

I trust no one who has a porch or trellis, or an old, unsightly shed, or too sunny, unblinded windows, will neglect to beautify them with the Honeysuckle, especially Lonicera Halleana, and the Scarlet Trumpet Honeysuckle, or the native Clematis, C. Virginiana, or the Dutchman's Pipe, Aristolochia Sipho, or Clematis Jackmanni, or C. flammula.

If care is taken, the climbing Roses are the best of all, but these necessitate much work, and the slugs are so persistent as to require constant watchfulness. Then they must be pruned and covered, but their beauty is worth all it costs.

The Virgin's Bower, Clematis Virginiana, with its lovely white blossoms, is perfectly hardy, and of fine effect. Both the Virginia Creeper and the Japan Ampelopsis need no care, and from earliest spring to freezing cold are beautiful and most lovely in autumn with their flaming foliage. The Climbing Bittersweet, Celastrus scandens, so free from insects, with its bright parted berries, is a close clinger to tree or trellis, needing no support, and is restfully clean. Like some worthy people, unliked by the meddlesome, it must be allowed to train itself and direct its own path, and also like such, it is always worthy of admiration.

The annual climbers are not to be despised for lower traillers, such as the climbing Nasturtium, the Momordica, the Balsam Vine, the Morning Glory; Cobœa, a climber of some twenty feet, is most affective for a bay window. The seeds of Cobœa must be placed edgewise and slightly covered by light soil, and should be sown in the hot-bed or the house early. The Cyclanthera, of Gourd species, is very amusing to the young, as it explodes loudly when ripe; its height is about ten feet.

I greatly admire the Cypress Vine, with its delicate fern-like foliage and profusion of star-shaped flowers. There are crimson, white, and white and crimson, that give a fine effect grown together over a trellis.

There is such pleasure in transforming the ugly to the beautiful, if we once set ourselves about it, that we never think of the toil, only the joy derived from it, a result comparable to that from the exercise of the Christian virtues. The vines and the flowers bring the birds and the butterflies.

MRS. HOSKINS.

THE LAWN.

The artistic arrangement of the lawn is, to the owner of every country place, a matter of the first importance, or should be. Time was when flower beds plentifully besprinkled its green surface, and made of even the smallest plat a very garden of brilliant coloring, attracting the eye of every beholder. But the fashions change here as well as elsewhere, and behold, now, the popular taste would point toward the larger expanse of green with its modicum of shrub and tree, while the old time flower bed and its occupants smile at you through the garden fence.

Care should be taken to have a firm, beautiful sod in the first place, to which end a thorough preparation is essential, and, whether it is to be sodded or sown, frequent top-dressing will insure its continued beauty, especially if cut close and often.

As to the arrangement, a continuous variety in form, color and expression would lend themselves to the eye and hand of the true lover of artistic beauty. Here a certain species of tree, dainty and delicate in nature, yet perfectly hardy, would form a beautiful mass when grouped, like the dwarf Arbor Vitæ and Irish Juniper, while there are for separate planting the varieties of Norway Spruce, White Spruce and Hemlock,

the larger varieties to be kept within bounds by cutting back, while the dwarfish kinds may follow their will

Just here we might put in a plea for the old fashioned Cedar, which, when allowed a free growth, is lovely in shape, covered with its pretty blue berries or with its sober brown apples coming out of the summer shower, a wonderful spectacle. When trimmed and trained it is made to answer as a pretty hedge or arch-way to hide the wild growth of some steep hillside, yet thrives none too well for its artistic training.

For the flower lovers there are so many hardy flowering shrubs that it is hard to choose among them, especially when the lawn is a small one. I think if I could have but one I should choose the Magnolia, whose fragrant, satin-lined flowers charm everybody, and in most latitudes is hardy with some slight protection against too severe winters. The Japan Quince is sure to give pleasure, its red blossoms coming in the early spring days when we know best how to appreciate them.

Spiræa prunifolia, with its wreath of Daisy-like flowers, Snowball, Syringa, Deutzia gracilis, with its drooping bells, and Yucca filamentosa, a unique plant which follows later in blooming, for white flowers; and the Weigela rosea, so well known in its rosy grace; the Flowering Almond, Lilac, with a clump or two of fragrant pink Chinese Pæonies for color.

There is within my immediate neighborhood a rare old hill-top home, whose lawn slopes down on either side, and holding the choicest of shrubbery. Trees of the taller species of White Pine and Spruce, so old that their trunks are not spanned by the longest of arms, their tops reaching far heavenward, are upon its slopes, while down at the foot of the long flight of stone steps stand on either side the magnificent Magnolias that are, in the summer time, great clumps of bloom. The pride of the hill, however, is a fine old Smoke or Mist Tree, which every year is completely enveloped in this cloud of mist or smoke, lasting for some two months or more, and changing in that time from delicate green to faint tints of pinkish color, and ending in the smoky tint which vanishes at last with the summer breeze whisking it away piecemeal.

Another charm of this place, and it has many, is a native vine of Bittersweet, gnarled twisted about the old trunk of a Catalpa tree, creeping over its whole top and hanging in long festoons on which gleam berries half the winter.

While some good varieties of shrubs and trees have been named as adding to the charms of a well kept lawn, there are many more whose merits are equally good, and should claim the attention of every lover of beauty. H. K.

THE GLOXINIA.

The Gloxinia, which a decade since was almost unknown to the amateur florist, is surely, if slowly, winning its way to recognition and popular favor. There are yet, however, many people having fine collections of house plants and desirous of increasing their store, to whom the Gloxinia is a closed book, but a book whose leaves alone would commend it to any one interested in the floral kingdom, to say nothing of its illustrations in the form of flowers, which rival, if they do not surpass, those of many of the princely race of Orchid. The difficulties surrounding the culture of most exotics of unusual beauty are often so great as to deter the amateur from any attempt to grow them, especially if not the fortunate owner of a greenhouse. This is not the fact in the case of the Gloxinia, it being really one of the most simple of all plants in its requirements, and well adapted to those windows which have the benison of sunlight but a small portion of the day.

This beautiful flower may be had in bloom from early spring or late winter until the close of autumn—two lovely blossoms now, November 13th, bearing witness to my last assertion. It serves to brighten the window with its gorgeous bells when the other plants are taking their rest, or have deserted the living-room to beautify the garden or the piazza. It too usually sleeps the "sleep of the just," but at a time when the Primrose, Geranium, and their host of gay companions are ready to lighten the

dreary winter days with their wealth of loveliness to rest and divert tired eyes weary of the glare of a snow covered landscape, or the grim barrenness of a northern winter.

The pink shoots of the early varieties wake in good season, soon developing into the velvet leaves which gladden the heart of the possessor with a promise of greater loveliness to come.

The Gloxinia is easily raised from seed or propagated by cuttings of leaf or shoot. In order to increase any particular variety it is necessary to do so, if you wish to be certain of success, by means of cuttings, but few, however, who have fathomed all the wonderful possibilities wrapped up in a packet of Gloxinia seed will afterward wish to confine themselves to the limited range afforded by cuttings, unless they can have access to a greater collection of these fascinating flowers than one finds outside the domains of the leading florists of the day. MRS. LUNEY.

THE BOOK OF NATURE.

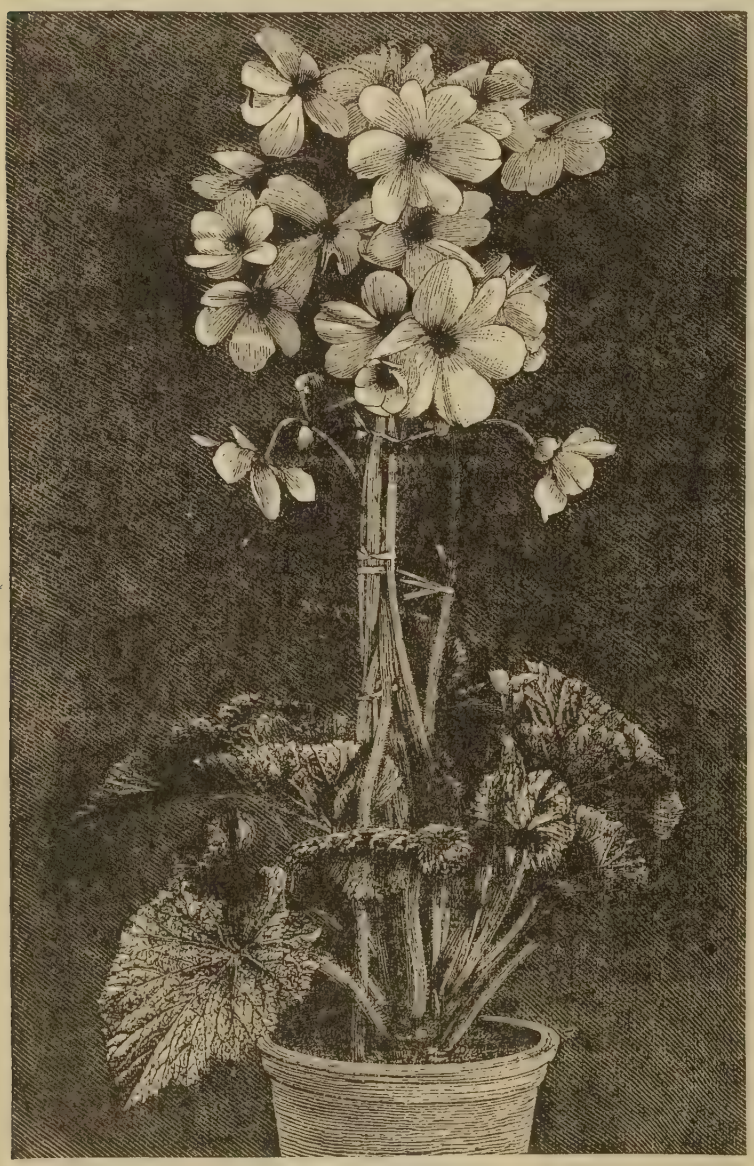
Few books and few friends are better than many. The men who have distinguished themselves by making greater attainments or greater advances in some particular line of research than any others before them, have usually been restricted to but a very few good books in the outset. A shining example of this is seen in the life of ROBERT DICK, a baker of Thurso Caithness, on the far northeast corner of Scotland. He had no books but the rocks and the plants, and there was but one highland glen in all the county in which any but the ruggedest vegetation could live, and that was eighteen miles from his home. Yet he studied these books of nature so closely as to be referred to by the highest authorities in botany and geology. Such men as HUGH MILLER, Sir RODERICK MURCHISON and Sir CHARLES LYELL corrected their works in accordance with his observations, and HUGH MILLER, especially, owed much of his famous account of the old red sandstone to the scientific baker. He excelled in botany, and loved plants —tender, gentle, living plants—better than the dead and stony fishes and empty shells which, although the most wonderful and instructive of all antiquities, tell us only of the buried ages. He would walk sixty miles in a night and morning to obtain or compare some plant or fossil, yet he never neglected his bake-house, and would not stop his processes there, even to wait on such a visitor as the Duke of Argyll, who "maun ca' again," his housekeeper said, "the maister can't come the noo; he's thrang wi' his batch." And the Duke came again.

ROBERT DICK would never put in print any of his remarkable discoveries, nor would he go from his home to visit great people or grand places. He was content and happy without. He planted all Caithness with hardy plants to gladden and instruct the future wanderer. His life, by Dr. SMILES, published in London, by JOHN MURRAY, is said to be one of the most delightful books ever read, both in matter and illustrations—one of the books that is calculated to do an incalculable amount of good by showing how to enjoy the country and the value of cultivating a taste for the simple, but always satisfying and pleasing, beauties of nature, rather than the meretricious and mocking vanities of the town. W.

FOREIGN NOTES.

A NEW STRAIN OF BEGONIAS.

Begonia octopetala is a species native of Peru. Discovered and described some years previously, it was put into the trade in 1873 or 1874. It is described as a plant with handsome leaves and a long tuberous root, dissimilar in this respect to most of the tuberous species whose root-stocks are somewhat spherical or bulb-like, and yet it has been considered a tuberous species. It is strikingly unlike most Begonias in its flowers, which have eight petals, giving it a rounded or circular form, and it has been frequently compared in appearance to the white flowered Anemone Japonica. The flowers are frequently three inches or more in diameter and very admirable, yet on account of shyness of blooming the plant has not become a favorite.



BEGONIA OCTOPETALA LEMOINEI—FLOWER OF AUTUMN.

Now, however, it appears destined to be known as the source of a new strain or race of Begonias of more than ordinary desirable qualities. VICTOR LEMOINE, a celebrated French horticulturist and hybridizer, has fertilized it with choice varieties of tuberous Begonias, and thus produced a hybrid strain with intermediate characters. To this race he gives the general name Lemoinei, or Begonia octopetala Lemoinei. The following description and the engraving here presented are taken from *Revue Horticole*:

While B. Octopetala has but few flowers, and generally but one flower-stem, the hybrids in question bloom abundantly. Each plant bears a large number of flower-stems, and the flowers are larger and very much more abundant than those of B. octopetala. The leaves, also, are equally different; they are relatively small and of intermediate form between B. octopetala and the

tuberous Begonias. As to colors, the hybrid plants present a wide range, from white to carmine or scarlet. The name, B. octopetala Lemoinei, is not, as one might suppose, applied to a particular plant or variety, but has a more general signification, and indicates a race intermediate between B. octopetala and the tuberous Begonias. The plant here figured has been named the Flower of Autumn, and is thus more particularly described: Plant vigorous, blooming abundantly. Root-stock long, irregular, intermediate in form between the long black root of B. octopetala and the nearly spherical bulbs of the tuberous Begonias. The thick and short herbaceous stems are furnished with leaves which appear as if radical and seem to spring from the ground; the leaves are nearly regular, wavy margined, with short teeth, and of a beautiful satiny green. Flower stems numerous, strong, stiff, attain a height of sixteen to twenty-four inches, bearing each from five to seven rose-colored flowers from two and a half to three and a half inches in diameter, formed of eight petals. The blooming season is the end of autumn. At this time M. LEMOINE sends out three varieties: Anemonæflora, with large white flowers; Flower of Autumn, with satiny, rose-colored flowers, as already described, and Ville de Nance, with enormous flowers of a brilliant magenta red. It will be at least another year before these plants are offered by the trade in this country; still, it may be well to put on record here the manner of cultivation, as described by the authority from which this information is taken.

Pot the tubers in a mixture of leaf-mold, sand and substantial soil, in May or June, and place in a cold-frame. When the plants have started well, turn them out in a piece of nicely prepared soil in open ground, in a partially shaded position. Blooming will commence in September, and at that time they should be placed in pots and set in a temperate greenhouse or well cared for window, where the blooming season will be prolonged to the end of December or beyond.

STACHYS TUBERIFERA.

STACHYS TUBERIFERA.

Some account of this plant in the role of a new vegetable has already appeared in our pages. The accompanying engraving, however, will enable one to form a more accurate idea of its general appearance than would otherwise be possible. The plant is a native of Japan, whence it was introduced into France in 1887. The plant belongs to the Sage family. In this country there are a number of native species of Stachys, some annual, some perennial. The following is a description of this Japanese species, as given in the *Journal of Horticulture*, from which, also, has been prepared the illustration. In the Chiswick Gardens "it has grown and increased with surprising rapidity, and though the tubers are small they afford ample compensation for this in their numbers. The plant is of a bushy habit, a foot or more in height, with spreading, fibrous roots, bearing the peculiar little tubers, somewhat spiral-like at first glance, but really formed of a series of fleshy rings, largest in the center and gradually decreasing to the extremities. They differ much in size,

ranging from one to three inches in length, and averaging about half an inch in diameter, of a consistency resembling the Jerusalem Artichokes, and it is said they are principally composed of inuline, the starch substance found in the latter vegetable, though some have stated that in analysis they give twenty per cent. of starch. * * * With this as with other vegetables much depends upon the way it is cooked and prepared for the table. Boiling, steaming and roasting are recommended, and serving with melted butter; no doubt, however, several modes of preparation will be devised by skillful cooks."

The plant is represented as of easy cultivation and readily increases, a well pulverized and enriched soil is desirable, in which the roots should be planted a foot apart in rows. The tubers do not keep well after lifting, and consequently when removed from the ground they should be stored in slightly damp sand or moss. The large tuber at the left is full size. In France the name "*Crosnes*" is becoming popular for the tubers, and in England they are called "Spirals" and "Chinese Artichokes," but there is no reason why the plant should not everywhere be known as Stachys.

SWEET VIOLETS.

A writer in the *Gardeners' Chronicle* gives the following as a complete, or nearly complete, list of all the varieties of Violets in cultivation:

SINGLE.

Argentiflora, white-tinged pink, has a long flowering season, strong perfume, said to be a first-rate variety.

Common White, very free flowering, and hardy kind.

Odoratissima, very like Victoria Regina.

Russian, blue, free flowering, and hardy kind.

The Czar, blue, large flower, not very prolific.

Victoria Regina, a grand flower, blue.

Wellsiana, blue, a new variety, said to be very fine.

White Czar, pure white, like The Czar, except color.

DOUBLE

Count Brazza, white—White Neapolitan.

King of Violets, dark indigo blue.

Marie Louise, darkish blue, or mauve, white eye.

Neapolitan, light lavender blue.

New York, similar to Marie Louise.

Parma, pale lavender-purple.

Patrie, deep purple-violet.

Queen of Violets, white, tinted violet-rose.

Swanley White, very much like Count Brazza.

DAY LILIES.

We have immense clumps of these that have for some years formed an edging round sub-tropical beds, for which purpose they are invaluable. They are most suitable for marginal lines round large growing sub-tropicals, as the foliage of the Funkias being broad and massive, it harmonizes well with that of the taller growers. The plants having now got too large for their position and encroaching on the lawn, they are to be lifted, divided and replanted. The Funkias make grand lawn plants—I mean for planting in suitable positions in large clumps on the turf Some of the strongest clumps now to be lifted are destined for this use, the most massive clumps and the largest growers being, of course, only used for this purpose. The remainder, after having been divided, will again be planted round the edgings of the same beds, and any that remain, in the herbaceous garden. The varieties most in favor are Ovata, Alba marginata, Sieboldi variegata and Subcordata. I ought to add that the plants resent frequent removal, so that they may with truth be termed permanent bedding plants. W. W., in *The Garden.*

PLEASANT GOSSIP.

THE HOLLY.

Will you please tell me what the Holly is; whether shrub, vine or tree, and if ornamental for the lawn? Is it an evergreen, and does it bear berries, and of whom can we purchase it? A READER.

Holly is the name of the botanical family of Ilex. Ilex aquifolium is the common Holly of Great Britain and Europe,

A HOLLY IN VIRGINIA—ILEX OPACA.

and is the Holly pre-eminent. It is with this species that the name has been mostly associated, but it also applied as a family name to all the species of Ilex. The common Holly is a beautiful small tree, with persistent foliage. The leaves are oval, wavy on the margin and with a few spiny teeth, surface smooth, shining, dark green. The leaves remain on all winter and until the new ones of spring take their place. It is a deservedly highly prized tree; but, unfortunately, in our climate, it can endure neither the severity of our winters nor the bright skies and the heat of our summers. Ilex opaca, which is a native of the Atlantic States, from Massachusetts to Georgia, more nearly resembles the common Holly than any other species of Ilex, native of this country. It grows among other trees, thus receiving partial shade, and attains a height of fifteen to thirty feet.

South of the latitude of New York, and especially east of the mountains, both the common Holly and I. opaca will succeed as ornamental trees in favored localities, and with the partial shelter of other trees. In Southern Ohio, Indiana, Illinois, Kentucky and Tennessee, occasional success is met in cultivating them by observing the conditions they require, but in general practice they are not thought of.

INSECT DESTROYERS.

For the Currant or Gooseberry worm, use White Hellebore, Veratrum album. It can be dusted on the plants with a dredging box or a bellows, first going over bushes and sprinkling them with water. Or powder can be used in water, one ounce to three gallons of water, applying with a whisk broom, a sprinkling can, or a hand force pump.

For the Cabbage caterpillar, the Insect Exterminator, and the Pyrethrum powder, are both sure in their effects. They can be dusted on the plants with a bellows, and this is the best means of applying them; some recommend using the powder in water, one ounce to a gallon of water, applying it with a force pump,

but carrying water is more laborious and sometimes can be provided only with considerable difficulty; besides, it is unnecessary, as the worms are on the outsides of the leaves, and can always be reached by the dry powder. Cabbage and Cauliflower growers provided with bellows and the Insect Exterminator can bid defiance to this pest.

The Cherry and Pear slug can be destroyed by the Exterminator or by Pyrethrum powder, an ounce to three gallons of water, applied with a force pump.

Orchardists should not fail to use the means now at their disposal for the sure destruction of the codlin moth, the great pest of the Apple orchards, and producing greater loss therein than all other causes. Paris green or London purple, one pound to two hundred gallons of water, applied to the trees with a force pump, will kill this insect. The application should be made promptly at the time the blossom is falling, and again about two weeks later. This substance at the same time rids the trees of canker worms, leaf rollers and the tent caterpillars.

The curculio, which stings Plums, Cherries, and sometimes Pears, can be destroyed by the same means as the codlin moth, applying the liquid at the time the blossoms fall, and twice again at intervals of ten days.

Plant lice of all kinds, and many other insects can be destroyed by the kerosene emulsion, or mixture of kerosene and soap. It can be prepared by taking soft soap one quart, or hard brown soap, or, what is still better, whale oil soap, one-fourth pound; two quarts hot water, and one pint kerosene. Stir till all are permanently mixed. Then to one part of this mixture add fifteen parts of water. A force pump is the best instrument to apply it with, as a powerful stream sends it into cracks and seams not otherwise reached.

TO HEAT A CONSERVATORY.

Blessings to the man that invented the oil stove. I have a small one, called Tom Thumb, that is my best friend in my small plant room. If it is very cold I put on a pan full of water, a pan is better than a tea-kettle, for the steam soon generates over the whole surface, and gives that moist heat so necessary to healthy plants. A register in the chimney may give some heat from the stove in the next room, but does better as a ventilator. My stove, too, gives me warm water for watering the plants, and every few days I put on the stove a tin pan with a handful of the strongest chewing tobacco thrown into the water, it makes a steam not unpleasant to the smell, but it keeps down the greenfly, the foe that sometimes gets the better of even the most tireless workers among plants. I hold the plant over the steam, and this makes the insects scamper. Double windows make all the difference between success and failure. The cold radiates from a single glass, and may kill the plants within a small distance of it. But the air spaces between the two glasses favors an even temperature to the conservatory. The plants can be placed close to the glass with benefit to themselves. With an oil stove, one has to be watchful and not leave it a great while, but keep the wick turned down, so that it will not smoke. An oil stove may be invented in time on purpose for conservatories, that will do even better than my Tom Thumb.

SISTER GRACIOUS.

SPRAY OF ILEX OPACA.

SPRING AND THE SNOWDROPS.

It is sweet to know, though the snow lies deep,
And the skies are clouded over,
That the dear little Snowdrops, shrouded in sleep,
Will waken at call of their lover;
And, lifting their heads, at the spring's first breath,
Will open their buds in beauty—
Sweet symbols of life, in the midst of death—
Or love, which is born of duty.

LILLA N. CUSHMAN.

MY NEW CONSERVATORY.

We were going to build. The boy petitioned for a workshop; the housekeeper, for a light kitchen and plenty of closets, and I for a place for my plants. The extra cost for a small conservatory on the south side, connected with the parlor by an arched door, was found not to be large, so the room, thirteen by six feet, with double glass sides and roof, became a delightful fact. A door leads to an outside piazza on the west side, and a faucet is conveniently arranged close to the door, so that a hose can be screwed on in the summer and the front lawn watered. There is room for two long

INTERIOR OF CONSERVATORY.

shelves and two stands. The place will accommodate about four hundred plants. My vines have done nicely. A German Ivy is at one end and runs the whole length of the house, close to the roof, thirteen feet. A Cobœa, too, shows its pretty, bright leaves, and is twinning around the windows above. A Nasturtium and Smilax make a cheerful display. White Geraniums, Callas, Abutilons, Ageratums, Hyacinths and other bulbs are my daily delight. The sun does not strike one side of the conservatory, and here I have an English Ivy, Ferns, Lycopodiums, and other shade-loving plants.

I spend delightful hours in my conservatory every day. I have no carpet to splash with water, and my pets have all the light and sunshine to themselves. I hope every one that thinks of building a new house will plan a place for the plants as well as a library, dining-room or coal bin.

SISTER GRACIOUS.

PENNSYLVANIA HORTICULTURE.

At the annual meeting of the State Horticultural Assoeiation of Pennsylvania, held January 16th and 17th, 1889, at Lewistown, Pa., the following officers were chosen for 1889:

President—H. C. SNAVELY, Lebanon, Pa.

Vice Presidents—JOSIAH HOOPES, Westchester; H. M. ENGLE, Marietta; W. M. PANNEBAKER, Lewiston.

Recording Secretary—E. B. ENGLE, Waynesboro.

Corresponding Secretary — W. P. BRINTON, Christiana.

Treasurer — J. HIBBERD BERTRAM, Milltown.

Librarian—THOMAS J. EDGE, Harrisburg.

Generally speaking, the proceedings were characterized by short, practical discussions rather than by long and studied essays and papers. The few papers that were read were brief, interesting and to the point, and served as texts for general discussion.

Mr. BRIMSER'S paper on "Small Fruit Culture" presented a number of valuable facts regarding varieties, mulching, picking and marketing. His leading market varieties are Sharpless and Cumberland, and the most promising new varieties are Jessie and Bubach. One of his special features in picking is to assort his berries into two or three grades, according to size and quality. By this method his largest and finest fruit is not depreciated in value by being mixed with an inferior grade. He also deprecated the short-sighted policy of some who "tip out" three-fourths of a basket of small and indifferent berries with a few fancy ones. No intelligent or honorable fruit grower

can afford to adopt this method. Of Raspberries, his favorites are Cuthbert for red, and Ohio, Souhegan and Gregg for black varieties.

The exhibition of Apples was the largest and best the society has had for several years. Pears were few and inferior in size and quality. Several Lawrence and a number of Kieffers were exhibited, but the latter were decidedly small, badly colored and devoid of flavor. It is evident that Kieffer's Hybrid is getting a black eye in Pennsylvania.

A fruitful topic for discussion was opened when Col. McFARLAND read his paper on "Facts and Figures on Cold Storage." This, and the spraying of fruit trees are two of the coming and important questions for the horticulturist, and both were considered at some length. The Colonel exhibited plans and drawings of a large and successful refrigerating house at Harrisburg, and stated that experiments made with fruits, berries and meats had been entirely satisfactory. He advised fruit growers to combine or cooperate, and put up large plants in fruit districts, as they could be much more economically managed on a large scale.

A paper prepared by GEORGE T. POWELL, of Ghent, N. Y., was read by Secretary ENGLE, and advocated the use of the force pump and London Purple for the destruction of codlin moth and other insect enemies of the fruit grower. Mr. POWELL'S experiments during the past two seasons have been most encouraging and several members present who sprayed their orchards the past season reported equally satisfactory results.

Bagging Grapes also had some attention, some asserting that it proved of no advantage, while a far greater number highly endorsed it as a preventive of rot, Mr. HILLER, of Lancaster county, stated. that the practice paid them a handsome profit over labor and expense involved.

Mr. DAVIS, of Juniata county, claimed that in his locality bagging was in no sense a preventive of rot, and even if it were, it could not be made to pay in growing Grapes for market. A majority of the members present, however, did not endorse Mr. DAVIS' views.

"Are live fences desirable for the horticulturist," was briefly discussed, and the live fence generally condemned. A few spoke favorably of the new combined wire hedge fence, of recent introduction.

Notwithstanding the absence of some of the oldest and most active members, the meetings were largely attended and much interest manifested in the discussions. Some thirty-five new names were added to the roll of members, and good seed has been sown in a new field.

Professor MEEHAN, of Philadelphia, addressed the Society on Wednesday evening, and was greeted with a large and appreciative audience of the best citizens of Lewistown.

E. B. ENGLE.

THE DOINGS OF MARCH.

March puffed and blowed, and blowed and puffed,
And rode in on a gale,
And sent the dead leaves scurrying
Along with snow and hail;
And then, before the day was done,
Cased in a coat of mail,
He chilled the blood within our veins,
With an unearthly wail.

His icy armor thrown aside,
He tore around, next day,
And shrieked until the sky took on
A pall of somber gray,
And kicked up such a dreadful row
He drove the sun away;
At eve he hid the stars behind
A wall of frozen spray.

He shook his mane so lion-like,
And growled and roared so loud,
The shutters slammed, the fastenings creaked,
And even tall Oaks bowed.
And spry young limbs dashed here and there,
A thralled but frightened crowd;
And all things seemed to be at once
With active life endowed:

For things inanimate were sped
On missions in the air,
And he who ventured on the street,
Of self need had a care,
So many wandering missiles fell
About one everywhere;
While frost elves touched brown bearded lips
And wreathed the traveler's hair.

And so the days went on. and on,
Sometimes a sunny smile
Would brighten all the face of March,
Our chilled selves to beguile;
And he would play such gentle tunes
To lure us out awhile,
Then pounce on us, like bird of prey,
In the most savage style.

But April's feet were on the hills,
Her heralds banners bore,
And March grew lamb-like all at once
And calm demeanor wore;
He whistled very softly through
The key-hole, three times o'er,
And then he fled, and lo, a new
Guest stood beside our door.

MRS. M. J. SMITH.

HORTICULTURAL MEETING.

The annual meeting of the Western New York Horticultural Society was held in this city on the 23d and 24th of January last and was one of the best attended, and most interesting and instructive meetings of the Society. A fine display of Apples, Pears and Grapes was made by Ellwanger & Barry, some fine plates of Pears by P. Barry, a few specimens of Apples and Grapes by other parties. Without reference to the strictly business portions of the meeting, we present to our readers such papers, reports and addresses, or parts of them, as are thought to be of the greatest general interest, and valuable in all parts of the country to those interested in the subjects treated upon.

In the absence of the president, P. Barry, his address was read by W. C. Barry, one of the vice-presidents. From this address the following extracts are made:

MEMBERS OF THE "WESTERN NEW YORK HORTICULTURAL SOCIETY," GENTLEMEN—It is not my intention on this occasion to occupy much of your valuable time with a formal address. There are a few topics to which I desire to call your attention, and I will do so very briefly; but first as a matter of record, I may say in regard to the season of 1888 that the spring, summer and autumn were generally cool. The weather observer, Mr. Morrow, at this station, has kindly given me a statement showing that the temperature of the spring months, March, April and May, were from two to five degrees colder than the average, during a period of seventeen years; the autumn months, September and October, were four to five degrees below the average temperature of these months during the same period. November was unusually warm for that month, being several degrees above the average. The latest frost in the spring was May 17th; the latest on record, during seventeen years, was on June 14, 1874. The earliest frost occurred on September 14th, and this is the earliest on record but one, September 11, 1879. The humidity of both spring and fall is reported as very high and much above the average.

So it will be seen that the season of 1888 was rather peculiar, a cool, wet spring, with late frosts and a cool wet autumn until November, with early frosts. The summer was generally cool, with a few very short periods of heat; but the crops generally were abundant—strawberries and some of the other small fruits suffered from drought, and some of the later varieties of grapes failed to ripen in many places from a deficiency of heat. The plum crop was not uniform, in some cases a full average, and in others far below; the failure was no doubt owing to the blossoms having been injured. The same may be said of the Pears, though in regard to our own crop I may say it was generally large, the individual specimens generally larger than I have even seen them before. The crop of other fruits was about a fair average.

The unusually mild and wet weather of November and December ripened the late varieties of Pears prematurely, and although they sold for fair prices, yet there was a loss on them of at least 25 per cent.

It has been feared that the mild and wet weather of the late autumn would be unfavorable to the ripening of the wood of fruit trees, especially the Grapes and Peaches, but our men who have been pruning report the wood in very fair condition.

OUR SOCIETY.

The President then stated the action taken by the Society at its meeting the year before in changing its name to the New York State Horticultural Society and in enlarging its sphere of action to correspond to its name. In order to give the Society the means of exerting its usefulness in the manner intended an appropriation of $2,500 from the State legislature was asked but was not granted on account of some provision of the State constitution. The president continued:

We have no good reason to suppose that we will be able to procure an appropriation, and the question for us to decide now is, whether, as a State society, we can make a creditable showing without State aid.

The holding of summer meetings in various parts of the State, the publication of larger volumes of transactions, will necessarily involve much greater expenditure than we have had as a "Western New York Horticultural Society." It will be well to consider the cost before entering upon the work.

SPRAYING.

Among the subjects proposed for discussion are a few of special importance: One is spraying Apple trees with Paris green or London purple dissolved in water, to prevent the ravages of the terrible pest of the orchard, the codlin moth.

It is now a good many years since this remedy was first introduced and results have at last been reached which appear to justify the belief that, when properly applied, it will be effectual. If so it will be worth millions of dollars annually to our country. Careful experiments seem to have established these facts in regard to its application:

1st. The proportion of London purple to water is half a pound to a hundred gallons.

2d. The time to spray is just when the blossoms are falling and ten days afterward a second spraying, which many advise to make thorough work. Heretofore the mixture has been used in a much stronger form, and has injured the foliage. This must be avoided by all means. Better let the codlin moth have its way than injure the foliage of the trees. Healthy and abundant foliage is absolutely necessary to mature the fruit as well as the wood of the tree.

I have no doubt but this subject will receive your careful attention, and all the facts in regard to the time and manner of application will be brought out in your discussion.

It has also been ascertained by actual experiment that the ravages of the plum curculio may be prevented by spraying as recommended for the Apple.

Prof. COMSTOCK, the entomologist of the Agricultural Experimental Station of the Cornell University, issued a bulletin in November last, in which he says: "One of the most important results to frult growers of recent studies in economic entomology is the demonstration of the fact that injury to Plums by the Plum curculio can be prevented, to a great extent,

by spraying the trees early in the season with Paris green or London purple mixed with water."

Mr. C. M. WEED, the entomologist of the Ohio State Experiment Station, has conducted experiments, which as far as they go, are very satisfactory. He has applied it to Cherries, and says that three-fourths of the Cherries liable to injury by the Plum curculio can be saved by two or three applications of London purple, in a water spray, in the proportion of one ounce to five gallons of water.

After the statement of other facts bearing on the subject, Prof. COMSTOCK says: "Little remains to be said except to congratulate the fruit growers that, at last, we have at our command a very easy means of destroying this very troublesome insect. We will add, however, for the sake of those who are not familiar with the use of Paris green upon fruit trees, that the poison is mixed with water and applied by means of a force pump furnished with a spray nozzle."

It will be seen from all this that we are making progress, and I trust that every member of this society will take up this matter and experiment for himself. It costs little, and there is no danger in it. Pears are frequently attacked by the curculio and other insects, and I believe that the spraying remedy may be profitably applied to them in the same manner as to the Apple.

THE PEAR BLIGHT AND THE YELLOWS.

What about the Pear blight and the Peach yellows? I am sorry to say that no complete remedy or preventive for either has yet been discovered. I have been looking through the transactions of the Delaware Peninsula Horticultural Society, held at Dover, Del., last January, 1888; both these diseases prevail extensively in that State, and they were, as a matter of course, discussed at much length; various washes and fertilizers have been employed, but none of them are reported as a cure or preventive of the diseases.

Speaking of the Pear blight one member said: "It has been a good thing; it has kept sloughy farmers out of the business, and that there is no remedy but the axe and knife. If it is in the limbs, cut them off; if the whole tree is affected, dig it out and replant with some strong growing sort. Don't worry over the blight; treat your trees well and it will not bother you much."

These diseases have baffled cultivators for a long time, and may do so for a long time to come, but when we consider how many scientific men are at work in all parts of the country, in connection with the experiment stations, we have reason to hope that their precise nature and a remedy for them may soon be discovered.

Bad as they are I can see nothing very discouraging in them for the cultivators of Western New York. Fungus diseases which attack the Grape and other fruits, are also receiving much attention at this time. Prof. SCRIBNER of the Department of Agriculture and Prof. DUDLEY of the Cornell University Experiment Station, and other scientific men, are devoting themselves largely to the investigation of these diseases and will no doubt soon be able to aid the cultivator in applying remedies.

I have frequently alluded to the experiment stations as promising valuable aid to fruit culture and horticulture; I feel now that we shall not be disappointed, but we must not expect too much at once; the work of experiment is slow and takes time. Cultivators must co-operate heartily with the stations if they wish to produce the best results.

LOW PRICES.

We hear a good deal said about low prices, overproduction of fruits, and all that. This is nothing new; the same cry was not uncommon twenty or thirty years ago. In my opinion prospects were never better. The consumption of fruits is increasing wonderfully all over the world, but it is natural that as we advance, more regard is paid to the quality of the fruits and the manner in which they are placed in the market. The slovenly fruit-grower must go!

Horticulture proper, is making some progress in Western New York, but it is far from being what we wish it were and what it ought to be. The garden and home grounds of our farmers should receive far more attention, and I hope these Farmers' Institutes that are being held through the country, will take up the matter and awaken a spirit of improvement.

I hope the members of this society will do their duty and set a good example in their respective neighborhoods. Farm life must be made more attractive.

DEATH RECORD.

The president then noticed feelingly those members who have died since the last annual meeting touching discriminatingly their qualities and achievements. The following are their names: Hiram Sibley, D. M. Dewey, A. J. Caywood, James C. Allis, Daniel Conger, C. P. Avery, Dr. Andrew Merrill, and W. J. Babcock.

Concluding, the president said:

This part of my duty is ended, and now in conclusion, gentlemen, let me say to you that, whether as a State or Western New York Society, you have a great work before you, and I hope that you will in the future, as you have done in the past, devote yourselves to it with vigor, intelligence and enthusiasm. Your society must keep in the front!

At the close of the address the following letter from Mr. Barry was read:

ROCHESTER, N. Y., Jan. 23, 1889.

To the President and Members of the Western New York Horticultural Society:

GENTLEMEN—Feeling that I may not, in the future, be able to render you much assistance personally, and desiring that the society be maintained in all its usefulness, I propose to offer you a donation of two thousand dollars, the interest of which may be used annually to promote the objects of the society, under the direction of the executive committee.

This is but a small sum, but it will serve as a beginning. Other friends of the society may, and I hope will, contribute to it in the course of time, and then a fund may be created worthy of the society and sufficiently enable it to prosecute its work effectively.

Wishing you a pleasant and profitable meeting and regretting I cannot be with you, I am

Truly yours,
P. BARRY.

A vote of thanks was tendered Mr. Barry for his handsome donation, after which, in compliance with a motion, the chair appointed a committee to solicit additional donations in order to put the society on a sound financial basis. Several members gave expression in high praise of the manner in which Mr. BARRY

had always served the society and promoted the interests of horticulture, and later in the proceedings a resolution to this effect was passed.

GEORGE ELLWANGER, chairman of the committee on Ornamental Trees and Shrubs, read a paper on

HARDY HERBACEOUS PLANTS.

Although hardy flowers do not come under the title of ornamental shrubs, they are many of them, after all, ornamental shrubs in miniature, and some of them of larger habit than not a few of the arborescent growths that adorn the garden. Certainly no grounds, however limited in extent, can do without some hardy perennials. A place or garden deprived of hardy flowers is a house without pictures, a landscape without sun. Both ornamental shrubs and hardy flowers are required for the outward adornment of the home; neither can be dispensed with. But hardy flowers, somehow, are considered as difficult to grow, and are thought to require the constant attendance of a gardener. Where the grounds are of considerable extent and the collection is large, the latter opinion may hold good. But for places of ordinary extent where hardy plants are grown the care required is comparatively slight.

Some care they assuredly require—nothing that is worth having takes care of itself. Numerous species there are that call for special treatment. Many foreign plants and some natives are always difficult to grow. Some are capricious as to soil and shade; some demand an especial climate; some are too tender to successfully withstand our winters. On the other hand a large number of the most desirable hardy flowers are very easily grown; and scarcely need further attention after they once become established.

Most good garden soils will grow good garden flowers; and with proper soil to start with, an annual manuring, an occasional stirring of the upper surface, and attention to watering during extreme dry weather, the flowers will seldom fail to perform their part. Some strong-growing subjects there are which will prove exhaustive to the soil, and these may require future transplanting or dividing. Some species require renewal through fresh seedlings or cuttings. A large majority of hardy flowers, however, as I have stated, continue to increase in beauty year by year.

By herbaceous plants is meant such plants as die down in the autumn and renew themselves in the spring. To mention and describe all desirable herbaceous plants, even briefly, would require a large volume. The space accorded me is limited; and I, therefore, in this instance, merely refer briefly to a few species, supplementing these with a list of some among the many others that may be cultivated to advantage.

Perhaps the most satisfactory manner of growing hardy flowers is in borders, by themselves, where the roots of trees and shrubs may not interfere. Some of the more robust species, like the Pæonies, the large Japanese Anemones, etc., may find a place in the foreground of the shrubbery. The lawn should not be broken for plants, unless it be large enough to admit of a bed or two of really desirable flowers, or a group of large ornamental grasses, like the hardy Japanese Eulalias. In planting it is well to plant thickly, so that bare spaces may not obtrude. So, also, spring and summer-blooming flowers should be alternated, in order that borders may at no season suggest a dearth of bloom in large individual portions. Monotonous planting will be avoided; grouping will be carried out here and there; and contrasts of color will be carefully studied. Both the tree and herbaceous Pæonies will find a place in the shrubbery and flower-borders, and Roses, Lilies, Larkspurs, Phloxes, Columbines, Campanulas, Irises, Hemerocallis, Poppies, Funkias, Heliantheae, and a host of other hardy flowers will extend the flowering season. Subjects, like the Azalea, which require special treatment and are always more or less affected by our rigorous climate, I have not included.

Among the medium and tall-growing plants I would specify: Aquilegia chrysantha, Aquilegia coerulea, many of the Campanulas, Clematis erecta, many of the Delphiniums or Larkspurs, Funkia grandiflora, Funkia Sieboldiana, Funkia Japonica, the red and white Valerian, the red and white Dictamnus, Coreopsis lanceolata, Papaver orientale, Papaver orientale bracteatum, Hemerocallis flava, Monarda didyma, Lathyrus grandiflorus, many of the German and Japanese Iris, Hesperis matronalis fl. albo pl., Platycodon grandiflorum, Helianthus multiflorus fl. pl., Helianthus orgyalis, Helianthus Doronicoides, Helianthus rigidus, Helianthus decapetalus, Spiræa aruncus, Spiræa filipendula, Spiræa venusta, Spiræa ulmaria fl. pl., Statice latifolia, Lilium candidum, Lilium excelsum, Lilium tigrinum, Lilium Chalcedonicum, Lilium umbellatum, Lilium Japonicum longiflorum, many of the Pyrethrums, the two Japanese Anemones, Lychnis Chalcedonica, Echinacea intermedia, Centaurea glastifolia, Silphium perfoliatum, Hyacinthus candicans, Chrysanthemum maximum.

Subjects like the Silphium and the taller-growing Sunflowers or Heliantheæ, are more suitable for the shrubbery, or placed in the background. Among the smaller plants, Violets, Cowslips and Primroses are best placed in beds by themselves where they may receive partial shade. The Primrose family is especially adapted for the rock garden where the plants form dense cushions of bloom. Indeed many beautiful dwarf plants may be grown to the best advantage in the rock; but not a few may be appropriately placed in the foreground of the flower-border. All of the following are charming small hardy flowers:

Adonis vernalis, Silene alpestris, Saxifraga cordifolia, Saxifraga cuneifolia, Saxifraga Schmidtii, Sanguinaria Canadensis, Trillium grandiflorum, Ranunculus bulbosus, Phlox amoena, Phlox procumbens, Phlox subulata, Phlox subulata alba, Lotus corniculatus, Iberis corifolia, Iberis sempervirens, Iberis Gibraltarica, Iberis jucunda, Hepattca triloba, Cypripedium spectabile, Cypripedium pubescens, Doronicum caucassicum, Convallaria majalis, Astilbe Japonica, Anthericum liliastrum, Saponaria ocymoides, Gold and Silver leaved Thyme, Daffodils in variety.

Among the ornamental grasses should be included Eulalia Japonica, Eulalia Japonica Zebrina, Eulalia Japonica Zebrina variegata, Erianthus Ravennae, Aira fol. var., and the variegated Arundo. The Rose would require a separate paper to do justice to its manifold forms and varieties. I have mentioned but a very few of the very many desirable hardy herbaceous plants; but enough to render any garden beautiful from early spring until late autumn. Little care, indeed, they call for—these nurslings of Nature—compared with the beauty they bring. Year by year they renew their youth and draw new loveliness from the mould of spring.

GEORGE ELLWANGER.

At the conclusion of the reading WM. C. BARRY made the following remarks:

Hardy plants in the garden are a great delight, when once placed there they remain for years, affording a great amount of bloom and requiring very little care. It is proper, at such gatherings as we have here, to occasionally go out of the beaten track and draw attention to things of this character; because anyone who has a taste, or who is willing to cultivate a taste for these plants, is doing something which will not only result in great pleasure to himself, but will lead others to follow his example, and in that way accomplish a great work. Our hardy plants are not properly appreciated; the plants of our woods are not appreciated as they should be; and I hope that every year, as we gather at these meetings, special stress will be laid upon this subject, so that every member of this organization when he leaves for home, will feel it a duty almost on himself, during the year to go out into the woods and bring in some of these plants, put them in his garden, take good care of them and produce something which will in the end give great delight.

NOTES ON VEGETABLES.

Professor E. S. GOFF, of the New York State Agricultural Experiment Station, read a report on new vegetables tested the past season at the station. Professor GOFF introduced his paper by saying:

To one who does not expect too much, there is a certain amount of pleasure and profit to be obtained from testing seedsmen's novelties. It must not be expected that all, or even a majority of them will be really novel. Most of them are at best only new strains of old varieties, some, it is to be regretted, are new in name only. But occasionally we meet a truly valuable acquisition, one whose real merit is sufficient to repay us for at least a part of the disappointment we feel from the failure of the others. I would not condemn the introduction of novelties, because so many of them disappoint us. Our enterprising seedsmen have ransacked the four corners of the earth to enrich our gardens with the choicest products our climate is capable of producing. They merit our thanks for this. But it must be said, with regret, that they often carry novelty-pushing beyond the limits of truth. This, both individually and as a society, we should condemn. To put a new name on an old variety and advertise it as a novelty, or to make false claims for the qualities of any variety, new or old, is a breach of honesty that all good citizens should discountenance.

An account of the varieties tested then follows. In regard to Tomatoes the report says:

The Tomatoes furnished what appears to me the really valuable novelty of the season—the Dwarf Champion. While this did not equal in all respects the claims made for it in the catalogues, it proved a valuable and distinct new variety. The plant is dwarf and compact in habit, the foliage appears little subject to rust and the fruit is entirely smooth, very uniform in size and of excellent quality. In our test it ripened as early as that of any variety grown. Its purplish red color will probably be objectionable in some markets, but aside from this, I have no fault to find with it. The claim of the introducers that the plant is self-supporting is false if I may judge from our trial at the station.

Ely's King of the Earlies was worthless as compared with the many superior varieties now extant.

The Ignotum, sent out by Prof. Bailey, proved to be not very well fixed. Some of the fruits were all that could be desired for quality, but others were too small to be of value.

The Morning Star seemed to me only another name for the Mikado.

Scoville's Hybrid was of good quality, but not well fixed. The first showed much variation in size, and was not always smooth.

Bay State, Prize Belle and Volunteer were indistinguishable from each other, and from a dozen others that might be named, of which the Cardinal may serve as a type.

Amber Gem was a pale yellow Tomato of good size and quite smooth, but lacking in solidity. It closely resembled a variety named in our report for 1887 under the name of Golden Queen, and may be identical with it.

The report mentions the newly introduced Stachys tuberifera, saying:

The Stachys tuberifera, a so-called new vegetable from Northern Africa was tested, but cannot be pronounced a very great acquisition. It belongs to the Mint family, and produces small, fleshy tubers, which in our trial only attained the size of Acorns. Its table qualities were not tested.

C. A. Green, from the committee on Ornithology, made a verbal report, remarking that the committee believes that while the birds do some harm, the good they do in a large measure overbalances the evil. Aside from the fact that many of them are valuable as insect destroyers, birds, generally, make life work enjoyable by their song. Mr. Green showed an illustration of three tanagers on a lady's hat, and he said, "It is safe to say those three birds do more good than the woman who wears the hat."

Reports from various counties of Western New York were received through the county committees. A few extracts only from some of these are here given.

The report from Cayuga county conveyed the information that from 300 to 400 acres were devoted to Grapes in the county, of which a large proportion was in bearing last season. There were 150 acres of Niagaras in the northern part of the county. The Worden is planted for local market. Plum planting is also commanding attention. The Strawberry crop yielded the growers $100,000 dollars last year against $90,000 the previous year.

Mr. Cook, of Genesee county, in his report condemned the neglecting of young fruit trees, which are often grown up with grass, while the trees are pointing to nearly all points of the compass, and farm stock wandering at will through them.

Spraying trees with Paris green is no longer an experiment. He also recommended the planting of fruit trees on the windward side of the house, if only as a wind-break, thus furnishing good fruit, protection to the home, with saving of fuel. Marked changes in the improvement and beautifying of the surroundings of farm homes is indicated by many well-kept lawns and an increased interest in plants, shrubs and flowers and other attractions which make the homes of many Genesee farmers places of contentment, happiness, rest and peace.

S. F. White, of Mt. Morris, was invited to report for Livingston county. He stated that he was not in a position to report for the whole county, but would say something of his own place:

I have 140 acres planted to Peaches, and have made the business a grand success. The credit for this is not due wholly to my own knowledge of the business, for when I took hold of it I was perfectly ignorant of it. The first year I planted 700 Peach trees and the spring following had only one tree alive. My neighbors twitted me considerably on the fact, and frequently during the winter asked me how my Peach orchard was. I kept still, however, and the next spring had 3,000 trees on the ground. Those trees are now eight years old, and they have borne three full crops during the last three years.

W. C. Barry—Excuse me, Mr. White, but what varieties have been most successful with you?

Mr. White—We have too many varieties. If I planted another orchard I would plant only six or eight varieties, and have them come so as to supply the demand and orders continuously during the season. My orders ran as high as 1,500 baskets per day the past season. I have gathered as many as 2,258 half-bushel baskets in a day, forty to sixty hands being required to do the work. It is a business I have never regretted entering, and I would recommend it to anyone. But not to be entered into in a way that many undertake any branch of business. It needs constant care and watchfulness, not only in planting the trees, but in caring for and feeding them after they are planted.

W. C. Barry—What seven varieties would you recommend?

Mr. White—I would recommend the Waterloo, Alexander and Early Rivers; then the Foster and Early Crawford; followed by Oldmixon and Late Crawford. I would not plant any late varieties in our climate.

W. C. Barry—Where was your market for your fruit?

Mr. White—At my own door. To be more explicit—Northern Pennsylvania, Western New York and Canada.

In reply to the question of his location, Mr. White said his land was up from the flat land, and above the low table land.

I have the Peach yellows in my orchard. My first experience was when the orchard was four years old. I found a Crawford tree with premature fruit on it, and heavily loaded. I knew nothing of the yellows at that time, but have since learned what it is. I destroyed that tree at once, and have since picked from around where that tree formerly stood, three crops and perfectly sound. Yellews are only found on poor ground. I cut down twenty or twenty-five trees last year. It does not seem to stay in any one locality, but in different places. I never undertake to remove a tree, after cutting it down, while the leaves are on it, but let it lie till the next spring. This permits the leaves to fall into the brush, and I think the germs of the disease are killed during the winter.

Mr. Wheelock—My friend, Mr. White, has some fine land. I have raised Peaches for over forty years, and have had, on an average, a good crop every alternate year. There has been considerable of the yellows around me, but I had it only once, about seven or eight years ago. The spot where it appeared was the poorest part of the orchard. Two or three trees died one year, and five the next; but I pulled them up at once. I think if trees are fed pretty well with barnyard manure and ashes they will not be troubled much with yellows.

W. C. Barry expressed his agreement with this last statement.

C. M. Hooker made the following report for Monroe county:

The crops of the various fruits grown in our county were generally good in the year 1888. The Strawberry crop was an exception, however, being light and of poor quality, owing to the protracted drouth in the fall of 1887 checking the growth of the vines. The market price for this fruit was unusually high. Small fruits of all other kinds bore fair crops; the demand for them was good and as there has been less extensive planting for several years the prices paid for them was fairly remunerative.

The Cherry crop was rather moderate in quantity and sold higher than usual.

Pear crop rather moderate. Bartletts in particular being scarcer than usual. The price of this fruit was better than in 1887. The fire blight has not been very destructive with us for a number of years, and those who have orchards of Bartletts and Duchesse Pears are finding them profitable.

Our plum crop was of fine quality and not very excessive in quantity; prices were well maintained. There is increased attention being given to this fruit at present; growers are doing well with it, though some years Plum are quite a drug in the market.

Peaches were abundant, but the fruit was in many cases inferior in quality from the effects of the yellows, and in others from the over-bearing of the trees. Peach growing is receiving increased attention and proving profitable notwithstanding the yellows which continues to destroy many of our most promising orchards very rapidly. It is greatly to be regretted that no preventive or cure has been discovered for this disease. It is claimed that trees propagated from healthy stock upon stocks grown from seed procured in parts of our country where the yellows is unknown, are comparatively free from disease. Our nurserymen believe in this theory and are propagating with Peach pits brought from uninfected districts.

Our Grape crop was a remarkably heavy one and of very handsome appearance; but the quality was not as good as usual, caused by the very cold and wet fall, late varieties in particular failing to ripen as well as usual, even the very early, as the Brighton and Delaware, failed to attain their usual sweetness.

Owing to the very heavy crop of Grapes throughout the country they sold lower than ever before.

The Quince crop was very large, as was the case elsewhere, and it sold very low in consequence.

The Apple crop of our country was a surprise to every one. After the very heavy crop of 1887 it was thought we should have only a moderate one the past season. There was not an excessive show of blossoms, but the season was very favorable and our Apple crop was perhaps as great as in 1887, Baldwins being particularly abundant. The quality of the fruit, however, was not as good as last season, the codlin moth having appeared in increased numbers causing much wormy fruit. There was also a larger proportion than usual of small fruit from the heavy loads upon the trees. Summer and fall Apples sold fairly well, but it is needless to say that the price of winter fruit sold far from satisfactory. Notwithstanding the fact that about one million one hundred thousand barrels have been sent abroad, Apples are still very plenty and prices low.

The evaporating of Apples has been carried on very extensively; the stock on hand is abundant, and the market price for this product lower than ever before. This state of affairs is rather discouraging to our Apple growers at present, but after the abundant profits of 1887 they ought to be satisfied with moderate returns for this year. The present low prices are caused by good crops of Apples nearly everywhere throughout the country the past season. This does not happen very often and the chances are that this fruit will be much more profitable another year. As the codlin moth is rapidly increasing in numbers again, it is evident that the owners of orchards should be prepared to spray their trees with arsenical solutions this year—a process which can be done very rapidly and cheaply, but which has been very generally neglected in the past, though abundantly proven by careful experiments to be well worth doing when the codlin moth is numerous.

The canning of fruit has been carried on very extensively the past season, and the stock on hand is said to be large. The low price of Apples interfering to some extent with the consumption of these desirable goods until later in the season. The planting of fruit trees and plants has been only moderate with us the past year, and the prospects seem good for a profitable business this season. We have here in Monroe county a climate and soil unexcelled in the world for the production of a general assortment of fruits, and with our good shipping facilities and central location, we ought to be able to make some money even at a low figure, and we think so far the profits of the business will compare favorably with that of any other kindred pursuit. It requires, however, a knowledge of the business, a good deal of capital, time and patience to plant and bring to a profitable condition a fruit farm, and we would advise no one to undertake it who is in haste to get rich. But given the "right man in the right place," with capital enough to carry him through, and we consider fruit growing in our country quite as attractive and promising of satisfactory returns as any like industry with which we are acquainted.

In reply to the question, how long would evaporated Apples keep, Mr. Hooker said:

In cold storage indefinitely; but not out of cold storage.

Prof. Cook was introduced to the convention and invited to speak, but declined as he had already agreed to deliver an address to-morrow.

Prof. Bailey was introduced to the convention and, after referring to his position at Cornell University, said:

It has become my pleasure to cast my lot with you, and the reason I came to this gathering is that I may get acquainted with you. I wish to meet all the fruit growers of the state, that I may get all the help I can; and I want them to be interested in the work we are encouraging. We have an experiment station at Cornell, and I want your sympathy and aid, it being my hope that we shall be able to do something for you in a practical way. I want to learn about the best localities for certain specialties, and to know the men or obtain the facilities which will enable me to obtain this information.

Mr. Wells, in his report from Onondaga county, said that a great improvement was noticeable in the surroundings of the homes in both villages and towns; fences had been removed and the lawns were well kept.

Mr. Bronson made the following report for Ontario county:

In our report for the year 1887, we stated that the time was coming when in Ontario county, valuable as the land was for all grain crops, the fruit crop would be the most important one grown. We now think we have reached that point. Your committee has no doubt that the fruit crop is worth more to the county than all the other crops combined. This may seem a strong statement, but we believe it to be true.

The Currant has maintained its reputation again this year, it has been one of the most profitable of the small fruits. The crop was large, of fine quality and brought good prices. Fay's Prolific, while too acid for table use, has certainly claims for great productiveness and other qualities that will make it a desirable market fruit. It has evidently come to stay. Moore's Ruby, while not equal to Fay's in general style, possesses qualities that demand attention as a table fruit, slightly acid, and when known will be a general favorite.

In consequence of a drouth just at the critical time Strawberries did not make a full crop. They sold at good prices throughout the season; and where they were on good soil and well cared for they brought good returns. Another year proves the Jessie to be all that is claimed for it. It has shown productiveness and high quality such as to place it among the best for table use.

We had a good crop of Raspberries, and they sold at good prices. It has now become a settled practice with large growers that when the price reaches five cents they will sell no more in the green state, but take them to the evaporater. There seems to be a regular and great demand for almost any quantity in this form. We have watched the Golden Queen Raspberry another season and believe it to be valuable, particularly for its hardiness. It also has productiveness and fine quality. We know of no Raspberry that is more hardy.

Severe frosts at the time of blossoming did great damage to the Cherry crop, so that a good crop was the exception. There were, however, a good many Early Richmond and Montmorency Cherries shipped, and at extraordinary prices. We still consider it one of the most profitable and reliable sorts for mar-

ket. It seldom fails of a crop and is always in demand at good prices. We could give large figures from single trees of this variety. Another year's experience with the Windsor Cherry has confirmed us in all we have said regarding this new variety. We believe we are safe in saying that it is the most valuable dark colored sweet Cherry yet introduced for market or table use. The fruit was sold the past season for twenty-five cents per pound in the eastern market. The tree is exceedingly hardy and we believe on account of this and its freedom from rot, it must in time supersede the Black Tartarian. To Messrs. Ellwanger & Barry should be given the full credit of having introduced this most valuable fruit.

The Plum crop was below the average. The trees everywhere showed a very heavy bloom, and great promise of an abundant crop, but the freeze that injured the Cherries was equally destructive to Plums. And yet your committee know of a single grower at Geneva that shipped during the height of the season a car load of plums in crates and boxes per day. How many days this was kept up we do not dare to tell. It would seem like a very large fish story. The returns from the crop were very satisfactory. We will not enlarge upon this crop as Mr. Willard has written an article on the Plum to be read before the society.

We had a very large crop of Quinces. As to the net returns of this crop we cannot give any very flattering report. We think growers make a great mistake in persisting in sending all their Quinces to the eastern markets. We are satisfied that had the crop been more widely scattered, especially in the far western markets, much better results would have been realized. In talking with the heaviest grower the county, he told your committee that the earliest shipments did very well while some of the later ones brought almost nothing. Still, he said, taking the average, it was not by any means a failure. From other sources we learn that the early shipments were very satisfactory. We are informed that one grower in the county put upon the market about 3,000 barrels. The wonder is that, considering the limited section to which they were sent, they brought anything. The varieties were mainly Orange and Champion. There is some doubt in the minds of your committee whether the Meech's Prolific is a distinct variety.

Of Pears we had a fair average crop. The season seemed to be favorable for the development of the fruit; it was large, smooth and fair. Occasionally there was a glut on the market, but prices were generally good. We would again emphasize the necessity of good sorting and packing. The quality of the fruit and the condition in which it arrives in market determines the question of profit or loss. Poorly sorted and improperly packed fruit will not command a good price. Middle men, as they are called, who buy in the local markets, are too prone to take everything offered them at a fixed price. A price agreed upon between themselves, having little regard to quality, and then pouring them into barrels without grading or sorting and shipping them to the eastern markets. They give no encouragement to growers to sort their Pears, as they will pay almost if not quite as much for poor lots as good. So much for a bushel of Bartletts, and good large bushels they must be too, and no questions as to quality. This policy establishes a low price in the city markets and is a great injury to the shippers of really good fruit. Commission men like to handle good fruit, and if a grower will carefully sort his Pears and his brand can be relied upon, he will always get the top price. There are some new Pears which we hoped to be able to say something about this year, but the unfavorable season prevented their fruiting. We hope to have something more definite another year. One of exceeding beauty is the Vermont Beauty, of medium size, good quality, and the most attractive looking Pear we have seen. The Lucy Duke, originating in the south, promises well. As usual, the Kieffer sold at higher prices than any other Pear of its season. While the quality is not the best, it certainly is wanted for canning and is justly entitled to all the commendation it has received as a profitable market Pear.

We also report a very heavy crop of Grapes, but for a very good reason prices have ruled very low for almost all of the season. A grower, however, told us of his crop of several hundred pounds of Delawares, the first shipment of which brought him twenty cents and the last nine cents. In consequence of our cold wet season they did not get their true sweetness and flavor. This was especially true of the later sorts, as Catawba, Isabella, Iona, etc., even a large portion of the Concords were deficient in quality. The only wonder is that they sold as well as they did. Large quantities were kept for the holiday trade, but they scarcely did any better. There was an immense crop along the Hudson River valley, and they were sold for from two to three cents per pound, and yet several large growers told your committee that at that price there was no farm crop they could raise that would bring them as good returns.

And now what shall we say about the Apple? The bottom facts about the outcome of this crop are not of a very rosy hue. Contrary to the expectation of very many growers, there was an enormous yield of certain varieties. Baldwins were in excess in all the markets. There are still thousands of barrels unsold in the county. In consequence of an overcrop they were not, as a rule, up to size, nor do they seem to have their usual keeping qualities. The foreign markets were at one time so overstocked that they could be bought there for about the same prices as in this country. In talking with some of the large shippers of New York, they told your committee the fault was with the sorting and packing, that Americans had not learned to pack Apples properly for those markets and that the Canadians were far in advance of them. They also remarked that they feared that it would take years to overcome this difficulty in the foreign markets.. We believe the Stump Apple has not been appreciated generally as a valuable early fall variety. It seems to be very productive, of good quality, and may come to be regarded as one of the most valuable market sorts of its season. Mr. TUTTLE, of Baraboo, Wis., in writing of this Apple, after spending years in testing Russian Apples, says: If this were the only valuable variety in all the list I should consider myself well paid for all my trouble. Professor BUDD places this Apple at the head of all the new Russian winter Apples. The Macintosh Red, we believe, continues to maintain its superiority as a late fall market variety, unsurpassed for productiveness, quality and good market habits.

Peaches were about one-third of a crop, but were sold at very good prices. Among the new varieties, the Hyne's Surprise, after another season's fruiting, we feel deserves further notice. It is one of the early sorts, ripening with the Early Rivers and is absolutely a free stone. It comes from Texas and yet it seems to be one of the most hardy sorts at Geneva. The Yellow St. John we believe to be valuable as a very early Peach. It follows the Early Rivers and is the only yellow hearted Peach fruited at Geneva that ripens so early.

This season had its accustomed drawbacks for the fruit grower. A series of cold frosty nights at blooming time nearly destroyed the crop of Peaches, while Cherries and Plums were seriously injured. The crops were very much reduced in quantity. Prices on most sorts of early fruits were good, affording profitable returns to the grower, but as Grapes, Quinces and late Pears ripened the prices became much broken and Apples ended the season with markets demoralized as never before.

Your committee would suggest the idea that there may be other varieties of Apples that can be grown with more profit than Baldwins and Greenings. These you can top graft with success. Is it not a subject worthy of consideration?

Mr. C. A. Green asked about the shipment of Apples into foreign markets, and the system of grading packages. He had heard that if the Apples were tight in the package they were graded as good without examination; but if loose they were discarded without examination.

Mr. C. H. Perkins—The usual way at the auction rooms in the city of London, Eng., with either Canadian or American Apples is to empty a barrel on the floor where all the dealers can see them, and if they are put up honestly they command a good price. There is where our Canadian friends have had the advantage over Western New York Apples. The Canadian shippers bring forward a package which holds three full bushels, and the size of the package is uniform. Go to New York and see the Apples landed there, and of all the different sized packpackages it is possible for human beings to produce, Western New York can beat the world. There are nail kegs, pony barrels, a sixteen inch, a sixteen and one-half inch, and a seventeen inch head, with twenty-six and twenty-eight inch stave. Then the putting up of the Apples is as nondescript as the package. I am only a child compared with many of you, and it ill behooves me to come here and open my mouth to gentlemen of much more experience; but I happen to know something about it. It has grieved me for more than twenty-five years that with such a climate as we have, and in view of the fact that there is no country that can raise such long keeping Apples, and of such excellent quality, as Western New York, that we let our advantages go because we do not send out our stock in proper packages. The best goods bring the best prices, and we must pack the fruit so that we can realize the price we ought to command.

Mr. C. M. Hooker—I differ somewhat from the remarks of Mr. Perkins, at least so far as this county is concerned. I think there is no doubt it is the immense quantity that has gone to foreign markets that has induced the short prices. Apples from Canada and all parts have sold at a great loss to the exporters in many cases. We have been exporting ours. Our mode of packing has been to run the Apples for all fancy, faced properly and well shaken down, and the barrel filled up four or five times, then put on four or five quarts more than for home market. You would think the Apples would be ruined, and the top ones are, but they cannot be packed too tight. We ship only the good keepers, the Baldwin being the favorite Apple. We use a three bushel barrel, and I think it should be generally known that, in this county of Monroe, we do not use all sizes of packages.

Mr. Perkins—I have had to do with the export trade for the past fifteen years, and have exported a large quantity of evaporated fruit this year. To prove what I have said, I know that the cider mills are the only ones that are short of Apples. That will teach anyone a lesson. In most cases I sent my own men to put up the Apples, and in a few cases I took the Apples as put up, and I bought from the dealer; where my own men went I made money, but lost in the other cases.

Mr. Allen—I would suggest also that the barrel be kept dry after being filled. A barrel must not be left out to get wet and swell. Western New York Apples are largely stamped "Canadian Apples," consequently Canada has been getting the benefit of Monroe county's good Apples.

Mr. Varney—I wish the farmers of Erie county could have heard Mr. Perkins' remarks. Their Apples have been put up in all kinds of packages, and then left out in the rain every fall since I can remember. Now, however, an effort is being made to secure a uniform barrel.

Following the reading of Orleans county report by Mr. Virgil Bogue, Mr. Hopkins asked if they would recommend the using of an Apple gatherer.

Mr. Bogue—Two of my neighbors, one with six and the other with eight acres, were unable to get help at picking time, and afterwards three men picked the whole in one week's time and barreled them. One buyer said he did not want them because they were picked in that way, whilst another paid five cents better because they were picked with the picker, believing them to be worth that much more.

Mr. Harris—After examining Apples that had been picked one day with the Apple gatherer and those by hand, I decided those were best and bruised the least that were gathered with the gatherer. I was so well pleased with it that I went and bought a two-thirds interest in one the next day. It cost me just about one-half less to pick than by hand, and I think they were worth fully as much more. The most economical way to use it is with five men. Place two in the tree, one on the ground and two operating the gatherer. I think five men could gather two hundred barrels in a common orchard in one day.

A discussion arising in reference to the spraying of trees with Paris green, Mr. Green said he desired to emphasize the fact that all kinds of fruit trees can be sprayed with Paris green water to great advantage. He used one large spoonful to forty gallons of water; keep continually stirred.

Mr. Willard—I get my Paris green put up in three ounce packages and use that much to forty gallons of water. It is safer to procure in that way.

THURSDAY MORNING.

Prof. Cook, of Michigan, gave an illustrated talk on Insecticides. Speaking of the codlin moth, he said only one larva is found on a single Apple. He knew this from experiment. For a remedy he has tried London purple for nine years.

It can be bought for much less, mixes more readily and last longer. I would advise you not to talk

white arsenic. It is just the color of the soda used in the kitchen, and we do not want to do anything that will foster carelessness and render us liable to accident. Of London purple I would use one pound to two hundred gallons of water.

To the question, when shall it be applied, he replied:

Not till the blossoms fall. In the first place the bees are working there, and if the blossoms are only commencing to fall some of them are just fresh enough to contain nectar, and there is danger of poisoning the bees. You cannot afford to do harm to the bees. I think you will be safe to wait until the blossoms have fallen from your latest trees. In using the insecticide I made a point to know that every Apple received a grain of poison, and as a result every larva was killed and there was not a wormy Apple. When the egg hatches it gets a little poison and so is killed. I think you cannot get so little poison on the fruit that if the insect gets any it won't kill it. If you put the solution on stronger than I have mentioned you will kill the foliage. Why it does this I do not understand, but am going to try it. I am going to put it on at all times of the day and in all weather. Another thing, you must be thorough. If we have only one pound to two hundred gallons we can throw it on with a force pump, and liberally. Would I put it on a second time? I answer, if you want the best results, yes.

How will you put it on?

By all means get the Field force pump, with the Moody attachment, called the Perfection Spraying Nozzle. Go on all four sides of the tree. The dilution makes it possible for us to be liberal, and with a pump you can go on every side of the tree. Another thing, it must be done when there is no wind. There is the Gould pump and the Nixon. I have no interest in any of them, so can mention them all. When you put it on with a force pump it goes on with a tremendous dash, and that is the way you want to apply all insecticides, always with a dash. It flies all over, and if you will take a little hand lens you will see that every point has received a drop of poison.

THE CURCULIO.—They prefer the Plum, but if there are no Plums they will go to the Apple. Plant Plum trees near your Apples, then the curculio will be drawn to the Plums and you can fight the Apples to greater advantage

How will you fight curculio on the Plums?

First, use the remedy just given. I tried it once and did not get favorable results, and so condemned it. But confession is good for the soul they say, and so I confess. The past year we put it on three times, and the trees were as nice and fair as could be. The curculio eats the leaves and the Plums. You spray the trees and it gets the material from the leaves and Plums, and dies. The rain usually washes the poison off the leaves and the dose must be repeated. The Plum attracts the curculio. Spray your Plum trees three or four times, you free your Apples and have beautiful fruit on both. Another remedy is to take fifty pounds of lime plaster and one pound of crude carbolic acid (indefinite term), and thoroughly mix. Use a step-ladder and go up on the tree to apply. J. M. Stearns, a careful fruit grower in Michigan, has tried this for reveral years. He takes common lime, but I prefer the plaster.

A Voice—How is it applied?

Prof. COOK—The jarring does it, and pays, too

APHIS.—This insect increases rapidly. The male and female appear in the fall; they mate, and the eggs hatch all females and alive. They hatch in such large quantities that Dr. LINTNER estimated that he got enough to reach to the furtherest fixed star in a few minutes. They take both the sap and the juice from the trees. My remedy for aphis is as follows: Soft soap one quart, or hard soap—preferably whale oil soap—one fourth pound; two quarts hot water; and one pint kerosene. Stir till all are permanently mixed. Then add water till the korosene mixture forms one-fifteenth of the whole compound. Throw it on the trees with a force pump. The eggs, just as hatching, can be killed as readily as anything else.

In reply to the question as to whether there was not danger of the plaster or liquids being blown into the eyes, Prof. COOK said:

I have never suffered any injury personally. It is necessary to notice the direction of the wind when at work. We put the plaster on just as the crown of the blossom falls off, or just as soon as you see the little crescent on the Plum; then repeat about ten days later, and again ten days after that. If a very heavy rain comes put on again at the end of a week.

BARK LOUSE.—This kerosene emulsion will also kill these. The time to apply it is in June. Then there is the Cabbage caterpillar. You all know what it is. It is a beautiful insect, and I would urge you to encourage your children to study them. Bring your boys to these meetings to listen to these talks. There are several remedies for these. Enquire for Buhach, not Dalmatian, insect powder or Pyrethrum. Use one ounce to three gallons of water. This is a specific for Cabbage caterpillars, Cherry and Pear slug, etc. Dash it on the insects with spray bellows or force pump. Another remedy is white hellebore, using one ounce to three gallons of water. This kills Currant slug. Apply with force pump.

THRIPS.—With these I have had no experience; but Mr. HANFORD, of Bristol, Ind., wrote me that the thrips were doing him damage. I recommended the kerosene emulsion and said that if he could succeed in getting it on the insects it would surely kill them. Why cannot you get a wide spray, and as you walk along spray them. The gentleman I have alluded to now has an arrangement for applying the emulsion.

Replying to the question what would you recommend for the Peach borer, the Prof. said:

If the insect had already eaten into the tree, the only thing to be done was to cut it out.

For insects on Radish he suggested putting in cold frames and cover with a cloth. He also gave the following remedy as good for preventing borers from working, and to kill the bark lice: One pint crude carbolic acid, one quart soft soap and two gallons hot water. Thoroughly mix and apply with a cloth to trunk and large branches two weeks after blossoms fall, and again three weeks later.

In his paper on Fungi, Prof. PRENTISS referred to a case of black rot in Wayne county, in a large vineyard of Niagara Grapes, where the loss was estimated at a ton of fruit per acre.

Mr. Van Dusen—The use of barnyard manure gave

rise to the black rot in this case. I understand that eighty cart loads had been placed on the ground. The injury to the new cane came from the ammonia from the new manure, consequently the new buds were blasted.

Mr. Dunning said a friend of his reported that a portion of his vineyard of Niagara Grapes had suffered from black rot.

Mr. T. S. Hubbard—It is quite a damage to manure ground heavily for Grapes unless the soil is very poor. A slight application at frequent intervals is better than one heavy dressing. I have no doubt that the unusual application in this instance would bring on black rot when it might not otherwise have occurred. We have experimented with downy mildew, and have found that an application of sulphide of copper is a remedy, but not for black rot. Bagging before the fruit is set is a preventive, but it must be done just when the blossom is falling. Those treated that way with us were perfect, and there was no rot inside the bag.

THE CANNING INDUSTRY.

Such was the title of an exceedingly interesting and able paper by Mr. S. G. Curtice, of Rochester, N. Y. He said there was $15,000,000 invested in the canning of fruit alone, in Western New York, and there was no reason why that amount could not be largely increased, if the supply of fruit was equal to the demand. To give the horticulturists present an idea of the increase in the business he was identified with, he mentioned the principal items for three years, viz.:

1886.

Paid for fruit	$142,000
" " tin plate	38,000
" " sugar	10,400
" " labor	36,000

1887.

Paid for fruit	$200,000
" " tin plate	43,000
" " sugar	13,000
" " labor	46,000

1888.

Paid for fruit	$236,000
" " tin plate	70,000
" " sugar	14,000
" " labor	68,000

In reply to questions asked by different members Mr. Curtice said White Cherries were generally used for canning. For jellies nothing was superior to the old-fashioned sour Cherry and the old red Currant. In regard to Pears, if they could obtain all the Bartletts they needed they did not care for any other kind. Of Plums, Imperial Gage was the favorite, although there was a mottled egg Plum they liked very well.

Mr. W. C. Barry—We are sometimes charged with making exaggerated statements, and of being interested in circulating them; but here is a case where an outsider makes statements to you of tremendous dimensions. Mr. Curtice states that the supply of fruit for canning purposes is not equal to the demand, and I want to emphasize that statement, so that you may remember it.

Mr. Wm. Webster, of Rochester, then read a paper on the Improvement of Farm Homes, at the conclusion of which W. C. Barry remarked:

This has been a very interesting paper. I want to urge members to think of their homes, and make them more beautiful and attractive. The day is coming when we shall have to stay at home, and then if our lawns and the surroundings of our homes have been planted with a few good trees and shrubs, and some perennial blooming plants, it will be a pleasing thing. We must not progress in one line, but give a little to the cultivation of the beautiful.

At this point Professor CALDWELL, of Cornell University, followed by reading a paper on Fertilizers.

Joseph Harris also read a paper entitled Manures for the Orchard and Garden, and Charles S. Little, on Aquatic Plants.

In the report from Yates county the statement was made that the total Grape crop of the county was estimated at 10,000 tons.

A paper from Mr. George Savage, on Roses for Winter Forcing, was received and read.

The attention of the convention was next directed to the printed list of questions.

Question—What would be the proper treatment of an Apple orchard on heavy clay soil, that has been in sod six years without manure, and from which a crop of hay has been removed every year?

Mr. C. M. Hooker—My advice would be to plow it up shallow, and keep cultivated; if poor, manure. The best time to plow is in the fall.

Prof. COOK—We plowed in June, cultivated and manured, and the next year we had almost a thousand bushels of good fruit. The plowing was rather shallow.

Question—To what extent is the cropping of orchards with other crops desirable?

Mr. Hooker—When trees are very young you can crop an orchard, provided you are careful not to injure the trees when planting or lifting the crop. A Pear or Apple tree that is barked by a cart or horse is injured forever. It is a very difficult thing to crop ground without injury to the trees.

A resolution was introduced and passed unanimously recommending J. S. Woodward, the present secretary of the New York State Agricultural Society, for Commissioner of Agriculture.

Question—What new Grapes or other fruits have been tested the past year and found to possess special merit?

Mr. Willard—Had some fruit of the Prunus Simoni, but had not tasted it and could not speak as to its quality. It somewhat resembled a Tomato.

Mr. Bronson—Had seen a box of it, but the fruit had evidently been picked before it was ripe. It was

handsome in appearance, but would never be used as a table fruit. The grower thought it good for canning.

RUSSIAN APRICOTS.—Mr. Arnold—Had fruited about a dozen, but the fruit was small and almost tasteless. He thought the variety was either Alexander or J. L. Budd.

RUSSIAN MULBERRY.—Mr. T. S. Hubbard—I saw this fruited when I was in Nebraska, on a Russian settlement near Fairbury in that state; and it seemed to me that it might be a valuable fruit to grow in places where other kinds of Mulberry are not raised.

Mr. Lamb—Saw an extensive orchard of it once in Ohio, but it did not compare with Downing's or New American.

THE STANTON PLUM.—Mr. Willard—Thought well of this variety. Its fruit was a dark indigo blue, and thought it a fine Plum. In color it resembled Gueii, but was not quite so large and somewhat different in shape. It was one of the latest Plums they had, very productive, keeps remarkably well, and in his opinion, the best canning Plum he had tasted. It originated in Albany county, N. Y.

SMITH'S PRUNE.—Mr. Willard—Thought this the same as Diamond, grown in England. It is good, but rather capricious.

MOORE'S RUBY CURRANT.—Mr. Hooker—This Currant originated in Rochester, N. Y., and has borne with us for several years. It was produced by crossing the Cherry with the White Grape, and shows characteristics of both parents; is of fine quality, and unsurpassed for family use. It is about the size of the Victoria, and is much more productive than the Cherry. It has surpassed Fay's Prolific with us, but I would not say that it will do so with others. I think it should be commended for amateur use.

Mr. Willard—I think Moore's Ruby the best red Currant for table use I have ever seen, and I endorse all Mr. Hooker has said concerning it.

Mr. Hubbard—I saw this Currant fruited on the government grounds at Washington, and was favorably impressed with it.

FAY'S PROLIFIC CURRANT.—Mr. Willard—I think this a very desirable market Currant; has fruited well with us, and, in comparison with the Cherry Currant, is more productive and larger.

Mr. Hooker—I think it a stronger grower than the Cherry, very healthy, and much more productive than either the Cherry or Versailles, the stems being inclined to be longer. It produces twice as much as the two varieties I have named.

PRINCE ALBERT.—Mr. Willard—We have raised tons of them. It is the latest Currant we have. People buy them, but I don't know what for. They are the most outrageous Currant I ever raised, but they make clean money. There is nothing good about it; so sour you cannot eat them, and so full of seeds that there is no juice.

GRAPES.—Mr. Hubbard—I have seen the Moyer fruited in three or four places. It is about the same quality as Delaware, not quite as good a cluster, but is a week or so earlier; has a nice foliage, but should recommend it favorable for testing only. The Eaton has not been fruited, except at the place where it originated, near Boston. It has been difficult to get ripe fruit; it ripens with Concord. Concerning Moore's Diamond I have not yet formed a definite opinion; have seen it fruiting in two places, and should think it worthy of being tested, but would not recommend planting in too large quantities.

Mr. Sanderson—The Diamond is about two weeks earlier than the Niagara and of fine quality; better than any other white Grape. We let some bunches stay for two months on the vine after being ripe and they did not shrivel. It ripens the last of August.

Mr. Hooker—It was first fruited at our place; is of beautiful appearance, an attractive cluster and of fine quality. The foliage is healthy and it is a strong growing vine. I considered it at that time a very promising variety. Unfortunately it was under the shade of a large Apple tree, and the fruit did not do justice to itself, consequently the quality did uot fully satisfy us. Since that time, transferring the vine to good soil seems to have developed it and made it more promising. It has never mildewed, and is equal to Concord. I have seen it grown elsewhere, and yield very handsome fruit and of excellent quality. With us it ripened about medium, because it was in the shade of a tree as I have mentioned, but where I have seen it since, it has proved as early as Delaware, perhaps a little later,

Mr. J. N. Williams—At Vine Valley it ripens three or four days after Delaware, and the quality is all that its best friends claim for it.

Mr. C. A. Green—I think the quality very fine.

THE EATON.—Mr. Hubbard said that he had heard that this was a large sized Concord.

THE MILLS.—Mr. W. C. Barry—This is a large, handsome Grape, but we cannot tell yet how it is going to succeed. With us it is very fine, ripening about with Concord. We had a vine ripen in one place earlier than another. Its only defect will be the time of ripening, but you cannot tell till after making a thorough test. The great value of this Grape will be that it is meaty, has a thick skin, making it invaluable for keeping, the size of the bunch is extraordinary, and it is quite distinct. It is hardy, and free from disease, so far.

Mr. Hubbard—We want a Grape that will ripen with the Concord.

Mr. W. C. Barry—We have been successful with the Rochester. This vine will take your eye immediately at sight, but nurserymen cannot propagate it easily. In some localities it does not sell. It cannot be rooted from eyes or cuttings; is an early Grape, after Delaware.

EMPIRE STATE.—Mr. Hubbard—I have nothing new to say about this Grape. I do not believe we can educate the people up to the point where it will pay to raise or introduce Grapes of fine quality that have not a fine, showy appearance.

VERGENNES.—Mr. Willard—This is a good Grape. I first showed it here ten years ago. It came from the east, from the man who propagated it. I planted the first vine in this state. That vine is now in existence, and has borne fruit every year. It is desirable as a long keeping Grape, having a skin sufficiently thick so it will take care of itself.

ULSTER PROLIFIC.—Mr. J. N. Williams—This variety has not fruited as satisfactorily with me as I had hoped. It is short jointed. The quality would suit the popular taste.

Question—Are any of the new Russian Apples and Apricots of any value for Western New York? Ought this society to recommend the extensive planting of Apples known as Iron-clads?

Mr. Atwood—I have had my attention drawn to some new seedlings which originated in Northern Iowa. They are said to be very hardy and of very good quality. As a rule, I think the very hardy Apples are not very good. There are a great many varieties sold under the name of "Russian." The Wealthy is proving too early. A seedling of Wealthy that I know of is perfectly hardy, standing fifteen or twenty degrees below zero in Wisconsin.

Mr. W. C. Barry—Russian Apples, so called, are not Russian, but generally German Apples. But there is something about them; they have a distinct foliage and are easily recognized. Wealthy, with us, ripened in October. Its fruit was handsome, perfect and of excellent quality—melting. I think highly of it for this vicinity. I like Apples that are soft and easily digested. Even if it does not ripen so late as we expected, it will be valuable for this locality. It drops a little, but not enough to make against it; it is a very early bearer and good.

Mr. Atwood thought that in Canada and Northern Michigan it would take on characteristics, and be later there.

YELLOW TRANSPARENT.—Mr. Willard—I think this the best early Apple ripening at its period that we have.

Mr. C. A. Green—Thought it of good quaulity for an early Apple.

Mr. Atwood—It ripens about the time of Early Harvest, and is good from the hand.

BELLE OF BOSKOOP.—Mr. Willard—I like this variety very much. It was first sent to me by Mr. Downing, with some other varieties. I regard it as the best Russian Apple I have tested. I think I am safe in saying I have found it so. It is solid, a good keeper, a beautiful Apple, and as productive as I would want. It has large, broad leaves, and is very marked.

LONGFIELD.—Mr. Willard—This Russian Apple has indorsements in other sections.

Mr. Rupert—I think highly of it.

Question—The Industry Gooseberry is said to mildew at Geneva, and is free from it at Rochester. How can it be grown without mildew?

Mr. W. C. Barry—I think we have had this Gooseberry long enough to know something about it.

Mr. Willard—Some one says it has mildewed at Geneva, but I do not know in whose hands it has mildewed there. I have never known it to do so.

Mr. Smith—I had it mildew for two years. I think the difference depends more upon climatic conditions than soil.

Mr. Willis—I impoverished my soil and thought that kept the mildew away.

Mr. Hooker—We had two or three bushes which we mulched heavily with fermented barn-yard manure, and thought that had something to do with the mildew. Last year they looked very fine just before ripening, but some very hot weather came and they fell off. Mr. Nelson told me he thought it was the result of sun scalding. I dont think it will succeed in all soils, but it is the best of all foreign varieties.

Mr. Dunning—Mine have shown no signs of mildew at Auburn. A little fruit dropped in the hot weather, but the crop was ready to gather.

Mr. Moore—I have seen the wild Gooseberry mildew in the forests.

Mr. John Glenn—We have had it fruit for four years, yielding crops that were simply marvelous.

Question—Are the new Strawberries, Bubach, Jessie, etc., as good as the Wilson?

In answer to the request for his opinion concerning the Bubach, Mr. Hoag said he could not say much about it.

Mr. Smith—It was the first ready with us.

C. A. Green—I think it a good berry, showy, but lacking in quality.

Mr. Dunning—I have changed my mind in regard to it somewhat. Its quality has improved with me, and I am so much satisfied with it that I have planted half an acre.

Mr. Green—I still consider the Jessie good. It has done remarkably well with me. The past year was a poor one for Strawberries, but the Jessie stood drouth well.

Mr. Dunning—I don't think it will ever take the place of the Wilson as a canning berry, but for market it will be good.

Mr. Hoag—I think the Belmont and Sharpless the two leading Strawberries.

Mr. Green—I don't think the Wilson a good table berry. I enjoy a good Strawberry, but would rather go without than eat the Wilson.

Mr. Hoag—Some years ago I cultivated two patches of the Triomphe de Gand. On the new ground they were good, but on the old they were not worth anything.

Mr. Green—I think Summit a very large, magnificent berry, but not very productive. I consider the Claude a better one.

Mr. Willard—New Dominion is one of the best on my grounds. It is a good bearer and uniform in size, more conical than Cumberland Triumph, staminate. I have never seen its equal.

Mr. Hubbard—I tried it on sandy soil, but without success.

Mr. W. C. Barry—I incline towards Cumberland Triumph and Sharpless. The most promising of the new ones is Belmont. The Jewell is a failure. I do not think we are making much progress in determining the permanent quality of the later varieties of Strawberries. The Bubach is large and uniform, but its quality is not good. It is a very strong grower.

At this point Mr. Hooker proposed to proceed to determine what the future name of this society shall be, with the result that the society rescinded the resolution passed at the last meeting changing the name and reaffirmed the name to be Western New York Horticultural Society.

The committee appointed to solicit additional contributions to the investment fund of the society consists of the following gentlemen:

S. D. Willard, Geneva; Anthony Lamb, Syracuse; G. A. Sweet, Dansville; C. L. Hoag, Lockport; T. S. Hubbard, Fredonia; G. S. Joslin, Fredonia.

THE GRAPE MARKET.

Mr. Gilbert, a large commission dealer of Philadelphia, Pa., being called upon, said:

The last car of Grapes we received was January 4th. From the beginning to the close of the season we sold eight hundred tons of Grapes. The season has lasted about six weeks longer than usual.

In reply to the question, if you were going to set a vineyard to-morrow, what would you plant, Mr. Gilbert replied:

Concord. I don't believe the Niagara will ever become a popular Grape. People buy it simply because it looks well, but a man who buys it once never comes back the second time. The sale of Damascus White Grape is very limited. I think the people like the Western New York fruit in preference to California fruit. The latter is very pretty to look at some-

times, but comes into market in a very stale condition. I do not believe California will ever become a serious competitor to Western New York, as the freights are so high, and we have to get a higher price for the fruit.

Mr. Hoag—California people tell me they prefer Niagara to their own white Grapes. Niagara sold in the Chicago market at fifteen cents, while California fruit only brought eight and ten cents.

The following valuable paper on the Cultivation of the Plum was read by Vice-President WILLARD, and is based on his own experience:

PLUM GROWING.

Mr. President and Gentlemen of the Association:

The successful farmer will select his seed and prepare his soil and so fertilize his crop as to insure a product of the highest market value, bnt the average fruit grower will do neither, and then denounce the growing of fruit as an unprofitable industry and its advocates as unworthy of public confidence. The successful Plum grower, however, must at the outset adopt the same principles as the successful farmer—his land must be right, he must select the best trees without regard to expense, he must study adaptability of different varieties to different soils, and he must cultivate and feed with no niggardly hand, or failure will mark his efforts from beginning to end.

There is an importance attached to the question of varieties which makes it a point first worthy of our consideration. Not all varieties do equally well on the same soil, and a careful observer will often find that a variety affording fine results with his neighbor a short distance away may be of little value with him. Again, a variety adapted to the wants of those who patronize the market most accessible and therefore brings the highest price may not be in equal demand in the market to which is sent the Plums grown at Rochester or Lockport. Therefore, we say, study the wants the wants of your natural market in considering the varieties you should plant for a profitable investment. To illustrate—I found the canning factories unwilling to pay the price that I can generally obtain elsewhere for the Reine Claude, a variety unequaled for this purpose, and yet on account of the short life of the tree and the depredations to which it is subjected from the curculio, I should say to those who propose marketing their crop to a near-by cannery, plant some other variety that may be produced more cheaply and is more rugged in habit.

Further, we have city markets where Damsons are more highly prized than choice sorts, or where colored varieties are required almost to the exclusion of others. And so I could go on to further illustrate the idea that an importance is attached to a proper selection of varieties for different locations rarely considered and which should be carefully studied by all who propose trying their hand upon Plum culture. Upon this question alone often hinges the question of profit and loss on the crops, and yet this must best be decided by the individual planter for himself from such observations, information and tests as may be within his reach.

I am, as I presume are others here, almost weekly in receipt of letters asking advice as to varieties of Plums to be planted for profitable orchard culture, in various and often widely different localities, and yet how can I, with satisfaction to myself or others, answer a question, the solution of which is coupled with so many conditions and circumstances beyond my knowledge or control.

I can say the Lombard, Reine Claude, Quackenboss, Bradshaw, Purple Egg, Gueii, German Prune, French Damson, Peter's Yellow Gage and Copper are among the best we have and seem well adapted to our soil and markets, while of the newer sorts now being tested, the Stanton is one of much promise.

Having determined the question of our varieties, let us bear in mind that the successful grower of Plums must make up his mind to persistently follow the insect life which ever stands ready to prey upon the Plums. The bloom has scarcely fallen before the curculio begins his depredations, and with the usual appliances of mallet and sheets the orchardist must persistently follow the jarring process for weeks, or until the fruit is sufficently grown to be beyond his reach.

Spraying with Paris green solution has been resorted to, but the foliage of the Plum is sensitive and only in skillful hands should Paris green be trusted or injury will follow.

The green aphis has found the leaves of Plums a fine pasture in which to multiply by the million, and far more difficult to subjugate than the curculio. The writer has, during the past three years, seen orchards entirely defoliated by its devastating work, notwithstanding the exercise of all known care for its extermination.

The leaf blight will occasionally step in, when influence of season seems favorable for its development, bringing with it immaturity of fruit and wood, and, when followed by a severe winter, destruction of tree equalled only by a prairie fire or cyclone is the inevitable result. You ask, "Cannot this be prevented?" The only answer that at present can be made is that good culture and a soil properly enriched may materially aid the orchardist.

In regular train follows the black knot, in many sections having rendered Plum growing a thing of the past, its spores ever ready as they float in the air to pray upon any tree by weakness or other cause rendered a fit subject on which to germinate and to spread its destructive powers. The eye of the successful orchardist will ever be on the alert and with knife and saw in hand, on the first appearance of the excrescence, he will cut far below the part affected and with promptness consign all to the fire. The Plum orchard should be carefully looked over twice a year for this destructive pest, or cause of regret for neglect will surely follow.

The picture may not be calculated to inspire confidence. The weak shrinks when there is no danger, but the bold, filled with enthusiasm, is inspired to go forward to success in whatever he engages. We have the soil and the trees, and science has taught how best to cultivate, feed and overcome the obstacles to be met in various stages of growth; common sense and observation should teach us how best to trim that our may trees carry to maturity a reasonable crop.

Proper handling and preparation for market are important factors in the work now in hand. The Plum is perishable, and more care is required than often is given, especially on sorts designed to be sold on the retail stands of distant cities; these certainly should be picked with stems adhering and carefully laid in five to eight pound baskets, in all cases picking the small or inferior fruit by itself to be marketed as second-class. And while the varieties designed for preserving need not be so carefully packed, equal care should be bestowed in sorting that no imperfect

fruit be packed in packages denominated first-class, in doing which you will find someone ready to purchase your fruit at its full value, giving you fair compensation for all your labor and care, and you in conclusion abundantly satisfied that a crop of well-grown Plums shipped in clean, neat packages, at the proper time, and to the proper markets, is one not to be despised.

Yours respectfully,
S. D. WILLARD.

The meeting closed with some congratulatory remarks of W. C. BARRY in regard to the interest maintained by the members throughout the session, and the valuable information disseminated.

A GOOD USE FOR MAGNIFIERS.

I am glad to see, in my eagerly expected February MAGAZINE, a triple magnifying lens for one of the premiums. They are invaluable in the conservatory, or even with a few plants. For boys and girls they make delightful studies, and arouses in them an enthusiasm for investigation. Our active, mischief-loving boy was a whole hour studying a scale insect on an Ivy leaf. He said, "I thought they were the homeliest and most stupid of bugs, but with my glass I really see something to admire in them. They don't have legs, but they get there all the same, for the mouths all down each side of their bodies sucks the sap out of the leaves, and this makes ugly brown spots." And the work of going carefully over each leaf and sponging off the insects was more cheerfully accomplished because he had been so interested in studying the creatures' strange ways. Take the magnifier into the garden on a summer afternoon, and the children will be more interested in the wonders it reveals than in fairy stories or old legends.

SISTER GRACIOUS.

SWEET PEAS.

Sweetest of all our flowering annuals, easiest of culture, loveliest in varying color, richest in fragrance, the flowering Peas claim our attention, not arrogantly, but seemingly in calm, quiet consciousness of their own undisputed merits. An ounce packet of Sweet Peas gave me more genuine pleasure last year than all the rest of my garden plants together. Where will you find such another combination of softly shaded and vividly glowing tints, rich in deep darkness, brightened by soft flushes; the curving, clinging grace of tendrils with such individuality of blossom; the cool, pale, classic green of leaves and rare perfume? They are blossoms to love in your heart, to tend in your garden, wear on your bosom, and ecstasize over in appreciative pages, like these.

Plant them just as you would their edible neighbor, only more reverently, and give a cool, moist soil, light shade and an early support; but they are too dainty to like rich, strong feeding, and the soil must not be hilled up about them. Cut off all faded and withered blossoms, allowing no seed to form, for seed is cheap and you cannot afford to sacrifice a wealth of lovely blossoms for a few pods. Give water every evening during dry, hot weather, not pouring it on from a height; put the nozzle of the hose or pot quite to the ground, and saturate the earth thoroughly. They cling to almost any kind of trellis, which gives a firm support, but a round brush trellis with plenty of projecting twigs shows them to the best advantage. LENNIE GREENLEE.

SUCCESS IN GARDENING.

Not one of us, be our garden ever so small a place, but would desire the fullest success to attend our labors upon it. To this end, we must bring into active consideration our means, and waste not one whit of our opportunities. If we could know at once the profitable knowledge experience brings, we might do much better even in the beginning. We know, or ought to, that the first consideration is thorough preparation of the soil. No need to waste one's efforts without it. A good time is now, ere the spring season opens, and whether it be for flower cultivation or that of the more useful vegetable, the result will prove its efficacy. Heavy clay soils require loosening properties, sand, muck, leaf-mold, or the indispensable, well rotted stable manure, and thorough working, while the loose, sandy soils are materially benefitted by a little of the clay element.

It is surprising how much fertilizing matter may be collected on a place in a year, which, if saved and properly used, will enrich the home garden. Care must be taken to provide the best seeds of each kind, and some thought given to the proper time of planting.

The thoroughly prepared gardener is generally the fore-hand, and always the

successful one. As to the rest, we believe that the best results and the surest are produced from well established and simple methods.

Right here we might say the old saying over again, that "an ounce of practice is worth a pound of theory."

In the vegetable kingdom there is as great a diversity as in the flower kingdom, and success and failure follow here as surely as there. But having made the conditions of each kind as nearly as possible our own, we follow with constant care and culture from seed-time to harvest.

It will not do to shorten our crop by even one day's neglect, for plants will feel it, small though they may be. We must take advantage of suitable weather, and waste no time in delay, but work thoroughly and well. Where weeding is needed we will clear out at once, for, like the evil in one's nature, "it spreads" with delay.

Another is a vigorous warfare to be maintained against worms, beetles and bugs. They spread, also.

With judicious care and planting we may have a succession of the luxury of tender, toothsome vegetables from early spring until late autumn, and all the result of our own effort, in which we have gained health, wisdom and plenty of good living.

It has been said that a garden of one acre or less will amply supply ten persons with all the luxuries of the season. There is the whole list, from the early Asparagus to the late Turnip crop, and even luscious Melons need not be excluded from the home garden, with easy care.

I say, with easy care, yet not so, for without constant and vigorous effort, and vigorous and constant stirring of the soil the whole summer long, in hot days as well as cool ones, there would be in all points but a meager harvest to gather in. There must be literally no "letting the grass grow under our feet,"

We would cultivate the desire to know how best to do the work, that we may not waste the labor which otherwise might be made most useful.

In garden making, after all, more than half the success lies in well matured plans and systematic methods of work; the rest, in the prompt and vigorous application of these methods. K.

SEEDS AND SEEDGROWERS.

A most real and beneficent use of the catalogues of seedsmen and florists lies in the inspiring foretaste which they bring of summer warmth and color. Sent abroad in winter, when the neutral nakedness of nature becomes especially depressing, their hopeful out-look into the resurrection life and bloom which are to come, is most gratefully cheering. Many a famished heart turns their pages with new hope reveling in their descriptions and pictured bloom, as though they were veritable conservatories of form, color and fragrance. But to many a fair gardener, I fear, the arrival of the seeds themselves bring less of enthusiasm, because, for their slight acquaintance with seed life and development the descriptions and pictures seem more akin to the brilliant blooms of their gardens than the dull little atoms and chaffy flakes which they hide in the ground, more as a kind of hocus-pocus or incantation than with any appreciative sense of the wonderful principles and processes which they inaugurate in the act.

But to one to whom the wonder and mystery of seed life has been opened, even superficially, the humblest little seed will be viewed with fairly reverent awe. He knows that within the unpretentious wall there is a citadel, and within that citadel a sacred fire, which, tended by nature's high priests, will leap into flames of gold and crimson. He sees in the dullest, smallest seed, not the insignificant beginning of a plant, but "the ultimate end of all vegetation," the all important thing "for the production, support and growth of which all other parts, principles and powers of vegetation have been elaborated and exhausted." He knows it contains, in a rudimentary state, all the organs proper to its species, and "becomes a plant by the development of parts already formed, and not by a new creation." He knows if creative power had only the resources of one planet at its control, a seed could never have been formed, for it takes a whole solar system and all the wonderful principles evolved by it to perfect one of those dull little shapes which we take into our hand so indifferently.

It cannot be claimed that seed-growers any more than plant-growers, professional and amateur, apprehend in any thing of

its fullness the magnificent scope of their vocation, or properly appreciate the honor which justly attaches to them as members of that firm in which all the forces of nature are joint and active partners. Perhaps the source of greatest satisfaction to a seed-grower should lie in the fact that through his avocation one of the most elevating and delightful of enjoyments is placed within the reach and means of every family in the land.

ALICE C. BROOKS.

THE REPORT IN THIS NUMBER.

The report of the annual meeting of the Western New York Horticultural Society, given in this number, is quite full, and only some of the longer papers that were read at the meeting have been omitted. The remarks of the speakers were carefully taken by our own reporter and specially for this MAGAZINE, and the present number has been enlarged to make room for this report. These discussions are valuable for readers everywhere in this country, although it is fully understood that necessary differences of practice obtain in different localities, and in different ways this point has been emphasized in these discussions. Our fruit-growers and farmers everywhere will have learned an important truth when they fully recognize that the value of varieties in all crops, and the value of manures for these crops must be determined by themselves, and that they can reach the best results of their labors only by carefully taking the means to attain a precise knowledge of the many facts which relate to their work.

GERMAN IRIS.

The plate of Iris in this number represents Bacchus, a large white or whitish flower, with the margin veined with purple, the veins running at right angles, or nearly so, to the margin, producing a unique effect. Bacchus is a tall growing and free blooming variety of great merit. The other variety is Cherau, a dwarf grower; stigmas and petals bronzy yellow; the falls veined with maroon on white ground, snperior edge bordered with maroon. The Iris is one of the most beautiful among our hardy perennials, and will not fail to please all who give it a trial.

CUT-WORMS.

I would like to tell the readers of the MAGAZINE of a little experiment of mine which I found all right. Being troubled much by cut-worms, I tried lime, but soon found some of my tender plants cut off below the surface of the ground. Then I made rings out of strips of tin, fourteen inches long and about two and a half inches wide, and put them around the plants, pressing them half way in, and had no more trouble. Ladies can make good use of their old tin cans in this way, by first melting the bottoms off on the stove.

W. A. G.

FRUIT CULTURE.

A persistent effort is being made, through the English press and otherwise, to develop fruit culture to a greater extent throughout the British Isles. With the land there, as now, being held by the few, and cultivated on leases, it is extremely doubtful if Apple culture can be greatly extended. With the small fruits the prospect is better.

U. S. COOK STOVE DRIER.

Housekeepers should not lose the opportunity to procure the Cook Stove Drier offered in our Premium List this month. Please refer to it, and see the new offer. Our readers will do a favor to their friends and neighbors to mention this splendid offer.

OUR YOUNG PEOPLE.

RACHEL'S REWARD.

IN TWO CHAPTERS.—CHAPTER I.

Rachel Rayburn had left the breakfast table standing to run out and take a peep at her flower borders. They outlined the gravel walk, and flanked the front and ends of the house. As she bent over them, hoping to catch glimpses of green from the bulbs and roots below, she felt that, with the exception of her young sister, Bessie, her flower borders were her greatest pleasure in life. A sudden sense of guilt convicted her as she thought of her father and brother. But she couldn't help the feeling—it was there despite her conscious loyalty to human ties.

Her flowers had never made her ashamed of the way they were dressed—had never resisted when she took the trouble to make them look tidy, nor mortified her with their rude manners. They had never sneered at her if she said "Good morning" on first meeting them for the day, nor returned uncivil answers for nearly every remark she made. They had not accused her of putting on airs and trying to ape the fine ladies at the "Winter Resort," near by, nor had they charged her with training Bessie to feel above her kin-folks. No, but they had given her grateful returns for every attention bestowed upon them, often nodding their thanks as she passed, or bowing outright if a dallying zephyr but hinted the word. So, no wonder that, from very contrast, the flower borders were precious to her heart.

As Rachel finally arose to her in-door duties a carriage stopped at the gate, and she recognized therein the lovely Mrs. Melville, whose baby daughter's illness had retarded her departure from the great hotel.

"Good morning, Miss Rayburn," she said; "I am out rather early to gratify this child, who has taken a great fancy to your sister, since her daily calls with the milk you send us. She commenced fretting for her before she was dressed, this morning, and I ——."

Here a plaintive voice called out, "Me want my Bessie." "—— and I had to promise to come after her before she could be quieted. We return to the city in two or three days, and as I have decided to change my nurse girl, I cannot hope to get a more desirable one than your sister would be, if you and her father would consent to let her go with us. I would do nicely by her, and, indeed, for Ethel's sake, I would do a great deal for her in various ways."

Rachel's heart-beats leaped into furious protest, and she felt as if she had received a blow from a friend, though she could not have explained why.

"I am told," continued Mrs. Melville, "that the modest, sweet ways I admire in Bessie, indicate her every day manner, and also that you have taken lovely care of the girl, and have been careful about her associates."

At this Rachel found her tongue. "Somebody has been kind to say that; but the trouble is, that I don't know how to raise such a girl as that—I am too ignorant myself. I want her to know all nice ways that belong to a different life from this we are now living, without her feeling 'set up' above it, or above our means. I can't help thinking, Mrs. Melville, that nice, refined manners and conversation might be brought into any family's plain way of living without doing harm. And I do want Bessie to know how to talk and behave among nice people, without seeming awkward. I couldn't bear ever to know of her being criticised or looked down upon for the lack of what she'd never been taught—so sweet and good as she is. And I can be no further help to her, for since our mother died, and I quit going to school, I've never been off of the farm but twice. Bessie was only a baby then, and I've always been needed at home. I've tried to keep her from being coarse, and I've given her such school learning as I had myself, and she can spell and read and write very nicely, I think. And, Mrs.

Melville, she don't know any badness at all."

"I'm sure, Miss Rayburn, that is the very choicest training she could receive if she were brought up by anybody."

("Brought up;" Rachel caught the words—she was bright and quick, and like a flash she thought—"I said, 'raised:' sure enough, we 'raise' calves and pigs, and 'bring up' children.")

"Me want my Bessie."

"Yes, dear. I was going to add," said Mrs. Melville, "that your idea of cultivating refinement in speech and action, in even the humblest home, is correct. The trite saying of 'low living and high thinking,' sounds better, and is better than its reverse. As for yourself, you ought to realize that, having passed your majority, or 'legal age,' in faithful service to your father and his children, you have now some rights of your own, at least, to the exercise of your judgment in personal and home matters. Undutiful girls who have never earned this distinction are the very ones to whom this should never be said."

"Me want my *Bessie!*"

"Yes, you dear child. But another word, Miss Rayburn. I want to suggest that, right here, at the 'Winter Resort,' nestled in that lovely mountain nook, will be gathered, every winter, a class of people from whom a young girl might learn much by simply 'serving' in some capacity for one season. Not only would she learn many details of table etiquette and of serving meals properly, but her good sense would soon detect the difference between true refinement—which is quiet and unostentatious—and the pretentious, more obtrusive sort, which is only assumed. But, oh, my dear, there are many snares for a young girl in these days as soon as she leaves her home-roof, unless she will, in every case, decline all social intercourse with men of whose past history she knows nothing. *True* ladies never overstep this line. *True* gentlemen never expect it.

"As for your sister, allow me to say, that it is just possible that the very kind of training you wish for her might be acquired by her living for a time in my family, as I have proposed; though you must be the judge of that," she added, smiling.

"That consideration," answered Rachel, "is the only one that could part us. Money would be no temptation. I will talk with father about it."

"*Me—want my—Bessie!*"

"Yes, you darling, you shall have her," and Rachel hurried in doors and up stairs, where she found Bessie almost dressed, and with face radiant from the glimpse she had caught of the carriage and its inmates below. Returning, Rachel explained that the farm breakfasts were so early that she did not always waken Bessie, but let her get her sleep out, at least two or three times a week.

"And there she comes," said Mrs. Melville, "fresh as a new blown Rose—living proof of your excellent care of her."

"There she tums," echoed baby Ethel, and soon the little thin arms were tightly embracing her Bessie, while their elders renewed their conversation, during which Rachel referred to Bessie's too limited wardrobe for so sudden a departure from home, but was silenced by the decisive answer, "Don't speak of it; she shall be suitably dressed." Then Ethel was told that Bessie must go and get the milk and get ready to go with her, and that they would drive on a little distance and return for her. So Bessie had time to eat the hot breakfast that Rachel took from the steamer and placed before her, as she stooped to say, with a kiss, "Don't you let Ethel steal your love away from me."

At the dinner table that day Rachel could swallow no food. There had been a troublesome lump in her throat all the forenoon. But having decided that she must sacrifice personal feeling for Bessie's good, she was determined to be brave. Mrs. Melville's talk had helped to fortify her with a fixed resolve to turn over a new leaf in her home-life. So she laid before her father at once the proposed change for Bessie.

Giving her a sharp glance to make sure she was in earnest, his astonishment was so great that a slice of pork was arrested in its progress to his mouth and returned to his plate, and then a long draught of cold water gave him time to recover his usual perversity. Then he said:

"Yuh've babyed Bess up so long I 'lowed yuh c'u'dn't part with her this easy; but I reckon yuh've be'n 'lettin' on.'"

"No, I've just explained to you that it's

only for her own good that I could part with her at all. If she should leave us, all the pleasure of my home life would go with her." Her father winced at this.

"Reckon yuh've as good as promised she shall go, on yer own hook. I 'low to have some say about my childern fer a good bit yet. With all yer high notions, don't forget that childern air told to honor their parrents."

"I don't forget, father; and I do honor the memory of my blessed mother, and have honored your authority and faithfully served you ever since she left us. You know that."

"None o' yer sass," said he, feeling the thrust she had unconsciously given him, because she could not truthfully say she had honored himself. Yes, he felt it, and it hurt him. For, besides her being necessary to his home-life, he really cared more for her than for any one else living. But this answer roused Rachel, and she replied:

"I can refer to Scripture, too; there's a text that says, 'Fathers, provoke not your children to wrath.' So be careful, and don't go too far I've borne a great deal."

Here, again, Mr. Rayburn lost speech and had recourse to another glass of water. Having rallied again, he resumed:

"It seems like it's so oudacious in yuh to go back now on all yer hifalutin notions. I 'lowed you wuz too 'stuck up' to hire out yer sister."

This was too much. Rachel knew that her time had come, and looking Mr. Rayburn steadily in the face, she said:

"Father, if you don't want to lose both of us, don't ever speak to me like that again. I can bear it no longer. I am 'past age,' and I must live hereafter where I can be treated with some respect. You know I'm not 'stuck up,' as you call it; but because I'm a plain, quiet, hard working girl, I don't have to be rude in manners and uncouth in language."

There was something in Rachel's eye her father had never seen there before, so again he lifted his water-mug to his face to gain time for choosing words. But his son was less observant, and he blurted out:

"Ef yuh aint stuck up, what d' yuh say f-a-th-er fer? Why don't you say 'pap,' like I do? Yer allus slingin' 'round yer fine talk and puttin' on fool airs--lettin on yer better'n what we air; an' yuh know it."

"Sam, shet up!" said his father. 'Pears like yuh never know when yuh've said enough. I'd 'a' tho't a heap more uv yuh ef yuh'd ever tuk her part when I wuz too hard on her myself. But no, yuh must allus put in yer senseless yelps whenever the old mastiff wuz out uv sorts. Yuh aint fit to have a sister, no how." Then, turning to his daughter, he said:

"Rach, yuh never understood me. When I seen yer nice ways growin' on yuh more an' more, I was afeered yuh wuz gettin' away from us, an' so I thought I'd break it up by teazin' you out uv it; but it's only made us grow furder apart. Ef yer mother had lived she'd 'a' kep' us all straitened out. She wuz good, she wuz—and had lots uv sense, an'—an' ef she'd only lived ——."

Here he shoved back, crooked his arm on the corner of the table, laid down his head and sobbed like a child. Soon controling his feelings, he raised up, and said:

"But, Rach, yuh're just like yer mother, an' I'm real proud uv yuh—'deed, I am—an' I'll promise yuh now that yuh may do as yuh like with me from this on, an' I'll try to please yuh, Rach, fer I kin trust yer good sense; an' yuh're to do as yuh like about Bess, fer yuh've had all the keer uv her, so fer." Then, wiping his eyes that would not stay dry, he continued:

"I declare, I'm jest all broke up with thinkin' how near I come to drivin' yuh away from home with my outlandish contrariness. Wish yuh'd spoke out sooner, Rach; yuh've been too patient with us. See here, Sam, ef I wuz a young chap, like yuh, an' had sech a sister as her, I'd think nothin' was too good er too nice fer her. D'yuh hear?"

Then Rachel left her seat, and going behind her father's chair she drew his head against her, and smoothing his unkempt hair away from his forehead, stooped over and pressed a kiss upon it. Then, hastening to her room, some happy tears found vent, the while it seemed that a "new heavens and new earth" were above and beneath her—so potential in its dominion is the kindness born of love.

MARIA BARRETT BUTLER.

THE TOPAZ HUMMING BIRD.

The Topaz humming bird is one variety of the three hundred known species of this class of exquisite birds, natives only of America and its adjacent islands. They

are not found in the Eastern Continent, although the plumage of the sun-birds of those countries is more nearly like that of the humming bird than any other. Nearly

all of this class of birds live in the warmer and tropical parts of America, although the little ruby throat will venture quite far north. It is one of the smallest, but not of such dazzling brilliancy as some of the others.

The Topaz is a bird of the warmer climates of America, and one of great beauty, both in form and coloring. It is larger in size than the ruby throat, and of much greater brilliancy in coloring. The wings are long and pointed, each feather of the most perfect form, of two shades of rich brown, so blended as to form an oval mark of light brown on each wing where it joins the body. The head is rather long and flat, of a jet black, soft as velvet, and the beak is black, long and very nearly straight. The back is a mixture of colors, changing with each movement of the bird, from a warm red brown to crimson, green, gold and darker brown. This coloring blends and shades up to a metallic green on the two middle tail feathers, the two on either side of these are brown. Extending above these are two long, slender black feathers, about three or four inches long and these are crossed half way up. The throat and breast are of the most dazzling colors. On the throat is an oblong spot of feathers, which seem like jewels of the greatest brilliancy laid on in scales of the different shades of green, gold, orange and yellow. Surrounding this is a ring of velvety black, and beneath this the breast flashes with all the most exquisite shades of crimson.

This bird, like all of its kind, has the same swift, darting motion for which the species are famed, and lives on the honey and insects which it finds among the flowers. To examine the exquisite placing of the feathers on these little birds, and the rich, beautiful coloring, is truly a delight, filling one with wonder and admiration each time there may be an opportunity to examine them. M. E. B.

KA-CHING! IT'S SPRING.

Ka-ching! The balmy spring has come,
The sun shines warm on all below;
I thought the streams would surely run,
It seemed so warm within, Ka-choo!

Why, who had thought the wind so sharp!
It chills me, truly, through and through,
I wonder if the month of March
Is really spring? O, dear! Ka-choo!

I saw a bird, this morning, flit
Amid the boughs of yonder Pine,
And so, I thought, I'd walk a bit
And sun myself, Ka-choo, Ka-ching!

Well, really, I'll not wander far,
Ka-choo! It seems so out of place
To sneeze so when the birds, so gay,
Are searching for a nesting place.

MRS. H

TRICOLOR.

While yet the dormant forests wear their gray,
The distance charms the eye with colors three
In generous measure. Green on the fertile lea
Springs the young Wheat, vivid in sunny rays.
From clearings near, wending their graceful way,
The blue smoke's airy legions rise and flee
Before the breeze, with buoyant motion free,
Or troop adown the glens where dews delay.
More bright in ordered ranks the Peach tree's blow;
Fair spheres of hovering color, soft, intense,
Whose tender pink no neighboring leaf presents
From full expression and far-reaching show.
Thus, handling lavish hues in swelling lines,
The Master Artist limns his large designs.

ABBY S. HINCKLEY.

POLLY'S PANSIES.

Polly's Pansies grow so large and fair,
Bright and fragrant, that we can but praise them;
"They're the finest anywhere;
Tell us, wont you, Polly, how you raise them?
What's your secret, little girl?" Then Polly,
With a look, half bashful and half jolly,
Smiles upon her flowers and bends above them;
"This is all the secret, I just love them!"

IDA WHIPPLE BENHAM.

EDITOR'S MISCELLANY.

THE MINISTER OF AGRICULTURE.

The present session of Congress, now within a few days of its close, has created a new office in the interests of agriculture, at least nominally so. It has been doubted by the best friends of agriculture that sueh an office was a necessity, or even if it wonld prove an advantage, but it has been created; and now whether it shall be useful or not will depend, in a great measure, upon the wisdom and integrity of the people for whose benefit it has been instituted, Henceforth agriculture will be represented as one of the great interests of the country, as it is, by a Minister in the President's Cabinet, equal in rank with the Secretaries of State, War, Navy, Interior, Treasury and Postmaster and Attorney Generals. The late Commisioner of Agriculture, Norman J. Colman, has the honor of the first appointment as Minister of Agriculture, holding the position for about two weeks, or until the close of the Presidential term. Mr. Colman had ably filled the position of Commissioner, and his appointment to the new place meets with cordial approval of people of all parties. We believe that as high an order of talent and executive ability will be demanded by this office as any other connected with the Cabinet, and the agricultural community will jealously guard the place, and demand the ablest men to fill it.

LITERARY NOTICES.

The Kalevàla, the Epic Poem of Finland into English, by John Martin Crawford.

This book is one of the literary treats of the time. The general air of the poem, so to speak, the rhythm, and that peculiar style which consists in repeating a statement in a different form, are all the same as Longfellow's Hiawatha. But the likeness does not stop with these features merely, strong as it would thus be, but many expressions, and even whole paragraphs in Hiawatha, are so similar to some in the *Kalevala* as to leave no doubt on the mind that our own countryman fashioned his well known work, in many particulars, after the *Kalevala*. We do not propose to pass judgment upon him in regard to this matter. The consensus of the literary public on this subject will in time properly shape itself and be expressed. Mr. Longfellow traveled in the "Northland," and had opportunity to become acquainted with this poem before writing Hiawatha. It is supposed that the poem is the work of many poets or singers, having grown by the accretions of the ages, as it was handed down from generation to generation through the singers or minstrels whose office it was to preserve and perpetuate the cosmos and history of primeval times, as understood among the Finns; and only in comparatively recent times has it been collected from various minstrels and brought together and committed to paper, and finally it was put into type in the Finnish language in 1835. Later, Swedish, French and German translations appeared. The present is the first full translation into English, and is the work of J. M. Crawford, M. D., of New York. The poem is full of beautiful fancies and imagery, and the translator is entitled to great praise for the skill employed in his difficult task. It is one of the great poems of the world, and should receive the attention not only of all the strictly literary world, but of the general reader as well. It is published in one handsome volume by John B. Alden, New York.

NEW ABOUT EDGAR A. POE,

A hitherto unpublished chapter in the life of Edgar Allan Poe will appear in *Harper's Magazine* for March. The old lady who was the heroine of this early love episode of the poet's gave Mr. Augustus Van Cleef permission to write down and publish her reminiscences of it, provided her identity should not be revealed. She declared that the portrait of the poet which is reproduced in this number of *Harper's* was "the best one she had ever seen, and had his expression." She died in the West in 1887, over seventy years old.

PUBLICATIONS RECEIVED.

Our thanks are due the Officers of the various societies and institutions for copies of publications as mentioned below:

Proceedings of the New Jersey State Horticultural Society, at its fourteenth annual meeting, held at Trenton, N. J., December 12th and 13th, 1888. An excellent report, and reference will be made to it in our next issue.

Journal of the Columbus (Ohio) Horticultural Society, Volume 2, 1887. A full record of the proceedings of this flourishing society, tastefully bound,

Sixth Annual Report of the Ohio Agricultural Experiment Station, for 1887. 338 pages, large size. A large amount of valuable matter.

Report of the Commissioner of Agriculture, 1888. The last report of Commissioner Colman, giving a summary of the work of the Department of Agriculture for the past year.

Distribution of Vernonia in the United States, by Professor Joseph F. James, M. Sc This is a very particular account of the native species of plants commonly called "Iron Weeds."

Tornados and Derechos, by Dr. Gustavus Hinrichs, Director of the Iowa Weather Service. A collection of facts and deductions that must, at least, be interesting to the residents of Iowa and neighboring States.

Bulletin of the Agricultural Experiment Station at Cornell University, No. 4, December, 1888.

Bulletin of the Experiment Station of the University of Minnesota, No. 5, January, 1889.

Bulletin of the Delaware College Agricultural Experiment Station, No. 3, December, 1888.

Bulletins of the North Carolina Agricultural Experiment Station, Nos. 59 and 60, 1888, with the compliments of our correspondent, Gerald McCarthy, who, we notice, is connected with the Station as botanist.

Proceedings of the Fourth Annual Convention of the Society of American Florists, held at New York, 1888. A very complete and excellent report.

ALDEN'S MANIFOLD CYCLOPEDIA.

The volumes of this work already received have been given a place where we can easily have access to them, and we are coming to prize it highly for its very practical information. Although other Cyclopedias are at hand, yet it is frequently the case that we find what we are seeking in Alden's, and not elsewhere. Volume XI now carries this work from Debt to Dominie. This is emphatically *the* Cyclopedia for the people, and the extremely low price—only 50 cents a volume in cloth, or 65 cents in half morocco—brings it within the reach of all. A specimen volume may be ordered and returned if not satisfactory. John B. Alden, Publisher, New York, Philadelphia, Chicago, Atlanta and San Francisco.

OUR PREMIUMS,

We call the attention of our readers to the Premiums offered in this number, and especially to those Premiums offered to each subscriber. Do not fail to read what we offer, and many a one can do essential service to his neighbor by calling attention to these Premiums.